

# Semantics I Midterm

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## 1. Gricean reasoning (pragmatics)

10/15 [a] In this case, notice that "I have a cat" is not a direct answer to "Do you have a siamese. B could have said "No, I don't", which is much more informative and more relevant/direct than the answer "I have a cat" since the question asks specifically about B's possession of a siamese. B' isn't more informative since it only negates siamese, not cat

10/15 We assume that B is observing the sub-maxims of the cooperative principle. Thus, it is likely that B gives this indirect answer by observing part b of the maxim of quality: do not say that for which you lack adequate evidence. Hence, assuming B is giving an indirect answer by observing this sub-maxim, B likely have chosen not to answer "No, I don't" because B lacks adequate evidence for this answer. Therefore, we can infer that B chose to respond in this way because B has a cat, B knows that siamese is a kind of cat, but B does not know whether if his/her cat is a siamese.

good, you could also argue that B is implying that he has a cat but he knows it is not siamese via a quantity implicature

0/3 should show that this is an implicature via a cancellation test

## 2. Possessives and more (compositional semantics)

8/8 [a] Using the entry that  $\llbracket \text{the} \rrbracket^{c,a} = \lambda f_{\langle e,t \rangle} : (\exists! x. x \in C_c \wedge f(x) = 1). (\iota x. x \in C_c \wedge f(x) = 1)$ . By NN, we know that  $\llbracket \text{the} \rrbracket \llbracket \text{book} \rrbracket = \llbracket \text{the} \rrbracket (\text{book}) = \llbracket \text{the book} \rrbracket^c = (\iota x : x \in C_c \wedge \text{book}'(x) = 1)$  defined only if  $(\exists! x : x \in C_c \text{ and } \text{book}'(x) = 1)$ . In addition, we use the entry that  $\llbracket \text{borrowed the book} \rrbracket = \llbracket \text{borrowed} \rrbracket = \lambda x_e. \lambda y_e. \text{borrowed}'(y, x)$ . Hence, by FA,  $\llbracket \text{borrowed the book} \rrbracket^c = \llbracket \text{borrowed} \rrbracket \llbracket \text{the book} \rrbracket = \lambda y_e. \text{borrowed}'(y, \iota x : x \in C_c \wedge \text{book}'(x) = 1)$  defined only if  $(\exists! x : x \in C_c \text{ and } \text{book}'(x) = 1)$ . By FA, we know that  $\llbracket \text{Alfonso borrowed the book} \rrbracket^c = \llbracket \text{borrowed the book} \rrbracket^c \llbracket \text{Alfonso} \rrbracket = \llbracket \text{borrowed the book} \rrbracket (\text{Alfonso}) = \text{borrowed}'(\text{Alfonso}, \iota x : x \in C_c \wedge \text{book}'(x) = 1)$  defined only if  $(\exists! x : x \in C_c \text{ and } \text{book}'(x) = 1)$ .

Hence,  $\llbracket \text{Alfonso borrowed the book} \rrbracket^c$ , when defined, =1 iff  $\text{borrowed}'(\text{Alfonso}, \iota x : x \in C_c \wedge \text{book}'(x) = 1)$  defined only if  $(\exists! x : x \in C_c \text{ and } \text{book}'(x) = 1)$ . good

8/8 [b] (1)  $\llbracket \text{Mother} \rrbracket$  is relational/transitive while  $\llbracket \text{book} \rrbracket$  is not. Hence,  $\llbracket \text{book} \rrbracket$  should have a common noun type  $\langle e, t \rangle$ , while  $\llbracket \text{Mother} \rrbracket$  have type  $\langle e, \langle e, t \rangle \rangle$ .

(2) These two noun types respectively contribute to the possessive DP by providing information about the relation between the possessor and possessee. Nouns such as "mother" is

inherently relational while nouns such as "book" provide information regarding the relation between possessor and possessee through contextual information. For example, "book" in a possessive DP suggests ownership. Additionally, these two types of nouns contribute to the compositional structure of possessive DP by affecting the semantic type of  $\llbracket s \rrbracket$  since these two nouns are of different semantic types.

(3) Its possible that (1) the possessor owns the external possessee: ex. My book (2) the possessee is part of the possessor: ex. My foot (3) the possessee is related to the possessor through kinship or some formal relation: ex. My brother / My boss. (4) the possessee is an action a result of some action committed by the possessor: ex. My performance. Therefore, it can be said that possessee/possessor relations have to types: alienable and inalienable.

good

[c] Since intransitive word such as  $\llbracket \text{sleeps} \rrbracket$  is of type  $\langle e, t \rangle$ , and since "Joanna's mother sleeps" is a valid sentence, the DP:  $\llbracket \text{Joanna's mother} \rrbracket$  must be of either type  $\langle e \rangle$  or type  $\langle \langle e, t \rangle, t \rangle$ . Notice that it cannot be of type  $\langle \langle e, t \rangle, t \rangle$  since "Barry kicked Joanna's mother" is a valid sentence while  $\llbracket \text{Joanna's mother} \rrbracket$  is not in the domain of  $\llbracket \text{kicked} \rrbracket$  if it is of type  $\langle \langle e, t \rangle, t \rangle$ .

good

Hence, this whole DP should have a type of  $\langle e \rangle$ . It serves as a referential pronoun. Here, it refers specifically to the unique mother of Joanna's. Since  $\llbracket \text{Joanna} \rrbracket$  is of type  $\langle e \rangle$ , we have that D' must be of type  $\langle e, e \rangle$ . Since we argued that  $\llbracket \text{mother} \rrbracket$  is of type  $\langle e, \langle e, t \rangle \rangle$ , "s" must be of type  $\langle \langle e, \langle e, t \rangle \rangle, \langle e, e \rangle \rangle$ . Since,  $\llbracket \text{book} \rrbracket$  is of type  $\langle e, t \rangle$ , we must have "s" of type  $\langle \langle e, t \rangle, \langle e, e \rangle \rangle$ . Hence, the semantic type of "s" is ambiguous.

good

Therefore, for "s" in "Joanna's mother", assuming that we are referring to Joanna's unique biological mother, we have that  $\llbracket s \rrbracket^c = \lambda f_{\langle e, \langle e, t \rangle \rangle} . \lambda x_e . (\exists! y : y \in C_c \wedge (f(x))(y) = 1) . (\iota y . y \in C_c \wedge f(x)(y) = 1)$ .

8/9

For "s" in "Joanna's book", assuming that we are referring to a unique book of Joanna's, we have  $\llbracket s \rrbracket^c = \lambda f_{\langle e, t \rangle} . \lambda x_e . (\exists! y : y \in C_c \wedge f(y) = 1) . (\iota y . y \in C_c \wedge f(y) = 1)$ .

but x is vacuously bound here; because it doesn't appear in the bodu of the function it gets 'dropped out' of the derivation, which is no good

Notice that we can also have possessive DP such as "Joanna's books". In this case, we might assume that we are referring to a unique set of books that's Joanna's,  $\llbracket s \rrbracket^c = \lambda f_{\langle e, t \rangle} . \lambda x_e . (\exists! \{y : y \in C_c \wedge f(y) = 1\} . (\iota \{y . y \in C_c \wedge f(y) = 1\}) .$

[d]. For sentence such as "Joanna's mother is Jane", the logical form "mother of Joanna" makes the variable binding much simpler. Notice that for noun like "book", this syntax changes the meaning, since "the book of Joanna" can be a book about Joanna. This reveals that these two nouns are indeed of two different types. We might simply the analysis for non-relational nouns such as "book" by adding a verb- "the book Joanna owns". This is consistent with our characterization of their noun types. Since "mother" is inherently relational, we don't need a verb at the end to denote the type of relation between possessor and possessee. For non-relational noun such as "book", we need an extra verb at the end to denote the relation between the possessor and the possessee.

+1

that's one solution

the other is to use the structural flexibility LF gives us to make Joanna and mother-type nouns compose before they compose with POSS so that POSS only ever has to take things of type  $\langle e, t \rangle$

[e].  $\llbracket \text{a doctor met Joanna's mother} \rrbracket$ .

$\llbracket \text{met Joanna's mother} \rrbracket = \llbracket \text{met} \rrbracket(\llbracket \text{Joanna's mother} \rrbracket) = \llbracket \text{met} \rrbracket(\llbracket \text{Joanna} \rrbracket(\llbracket s \rrbracket(\llbracket \text{mother} \rrbracket)))$

$= \lambda y_e. \lambda x_e. \text{met}'(x, y)(\iota y : y \in C_c \wedge \text{mother}(y)(\text{Joanna}) = 1)$  defined only if  $(\exists! y : y \in C_c \wedge f(y)(\text{Joanna}) = 1) = \lambda x_e. \text{met}'(x, \iota y : y \in C_c \wedge \text{mother}(y)(\text{Joanna}) = 1)$  defined only if  $(\exists! y : y \in C_c \wedge f(y)(\text{Joanna}) = 1)$ .

8/8

$\llbracket \text{a doctor} \rrbracket = \llbracket \text{a} \rrbracket(\llbracket \text{doctor} \rrbracket) = (\lambda f_{\langle e, t \rangle}. \lambda g_{\langle e, t \rangle}. \exists x_e. f(x) \wedge g(x))(\lambda x_e. \text{doctor}'(x))$

$= (\lambda g_{\langle e, t \rangle}. \exists x_e. (\lambda x_e. \text{doctor}'(x))(x) \wedge g(x)) = (\lambda g_{\langle e, t \rangle}. \exists x_e. \text{doctor}'(x) \wedge g(x)).$

$\llbracket \text{a doctor met Joanna's mother} \rrbracket = \exists x_e. \text{doctor}'(x) \wedge \text{met}'(x, \iota y : y \in C_c \wedge \text{mother}(y)(\text{Joanna}) = 1)$  defined only if  $(\exists! y : y \in C_c \wedge f(y)(\text{Joanna}) = 1)$ .

### 3. Expressive adjectives (semantics/pragmatics)

10/11

[a] Informally, an epithet contribute to the DP/sentence by emphasizing/characterizing the noun phrase after it and expressing emotion such as anger, excitement, annoyance, and so on from the speaker. For example, when a speaker who is a fan of Lebron James utters "It's the fucking Lebron James", the speaker expresses his/her high regard of Lebron James and "Lebron James" is emphasized. While, a driver who utters "I hate the fucking traffic" expresses anger and "traffic" is emphasized.

The role of the context of utterance is to determine the character that an epithet contribute to the DP/sentence. For example, if a trader just experienced market crash during the day and uttered "What a fucking day", the epithet "fucking" is used to express anger. On the contrary, if a trader accomplished massive gains during the day and uttered "What a fucking day", "fucking" is used to express joy and fulfillment.

good; what happens if you move ADJ around in the sentence?

[b] From our analysis, we concluded that the contribution of epithet to DP/sentence is the emphasis of the object and expression of emotion from the speaker. We use the sentence "The speaker says that he loves the fucking car" as the original sentence and "the speaker has strong emotion toward the car" as the inferred meaning.

Cancellation: "The speaker says that he loves the fucking car, and the speaker does not have strong emotion toward the car". Hence, epithet is not conversational implicature.

it does look like an implicature \ but it's not clear what conversational maxims give rise to the implied meaning here

Projection: The speaker says that he doesn't love the fucking car.

The speaker says to someone: love the fucking car!

Did the speaker say that he loves the fucking car?

If the speaker says that he loves the fucking car, let me know.

good

11/11

Hence, epithet projects, therefore is not entailment.

Plugs: Tom says that the speaker says he loves the fucking car. Hence, it is not pluggable.

but it does pass the other tests, so it's something like a presupposition

Therefore, it is not presupposition. We therefore hypothesize that it is conventionalized implicature by the data above. good

9/11 [c] Since  $\llbracket \text{the fucking computer} \rrbracket$  is of type  $\langle e \rangle$ , and that  $\llbracket \text{the} \rrbracket^{c,a} = \lambda f_{\langle e,t \rangle} : (\exists! x. x \in C_c \wedge f(x) = 1). (\iota x. x \in C_c \wedge f(x) = 1)$ . We hypothesize that  $\llbracket \text{fucking} \rrbracket$  is of type  $\langle \langle e, t \rangle \rangle$ ,  $\langle e, t \rangle \rangle$ . Hence,  $\llbracket \text{fucking} \rrbracket = \lambda f_{\langle e,t \rangle}. f'$ . Therefore,  $\llbracket \text{the ADJ computer} \rrbracket^c = \llbracket \text{the} \rrbracket(\llbracket \text{ADJ computer} \rrbracket) = \llbracket \text{the} \rrbracket(\llbracket \text{fucking} \rrbracket(\llbracket \text{computer} \rrbracket)) = \llbracket \text{the} \rrbracket(f') = \iota x : x \in C_c \wedge f'(x) = 1$  defined only if  $(\exists! x : x \in C_c \wedge f'(x) = 1)$ . Where  $f'$  is the characterisitic function for  $\llbracket \text{fucking computer} \rrbracket$ .  
good, but what does this denotation fail to capture?

[d] We propose that there are two groups of expressive adjectives. First, there are expressive adjectives such as "darn", "(god)damn", "fucking" and etc. Next, there are expressive adjectives such as "stupid", "idiotic", "amazing", "brilliant", "wonderful", and so on. The difference is between these two groups is that the first group only is employed to express emotion from the speaker, without and external/objective comparison class. When one says "I love this fucking car", the word "fucking" only suggests the emotion of the speaker toward the car, but does not reveal in any way how features of the car compare to that of other cars. However, the adjectives in the second group are not only used to express emotions toward certain objects but also used to show the result of comparison between the target objects and objects in the comparison class. Furthermore, the adjectives in the former group is context-dependent as we analyzed earlier. Their characterization of the target objects vary based on context of utterance.

Hence, adjectives in the second group have more definable truth-conditions. This difference could be captured by modifying the truth-conditions contributed by these adjectives.

I think you might be conflating the two uses for these words:

there is certainly more similarity in the patterns of use between this epithetic use and the literal meaning use for something like stupid than there is for fucking and I think this might be pushing colouring your intuitions

but if we limit ourselves to just epithetic uses where there is no literal content we can extract some regularity: mainly that they all seem to fall along continuous dimensions: intensity and valence. That is what this questions was meant to get you to try and formalise.