564 Lecture 23 Nov. 16, 1999

Homework

Reflexive:	δ is reflexive iff for all A, "δA are A" is true.
At most one	No "At most one woman is a woman"
Exactly three	No "Exactly three women are women"
Few	No "Few women are women"
No	No "No women are women"
More than two	No "More than two women are women"
Some	Yes "Some women are women"
Three	No "Three women are women"
All	Yes "All women are women"
Most	Yes "Most women are women"
Irreflexive	δ *is irreflexive iff for all A, "*δ*A are A" is false.*
At most one	No "At most one woman is a woman"
Exactly three	No "Exactly three women are women"
Few	Yes "Few women are women"
No	Yes "No women are women"
More than two	No "More than two women are women"
Some	No "Some women are women"
Three	No "Three women are women"

All	No
“All women are women”	
Most	No
“Most women are women”	
Symmetric:	δ *is symmetric iff for all A,B, “If* δ*A are B, then* δ*B are A” is true*
At most one	Yes
“If at most one woman is a smoker, then at most one smoker is a woman.”	
Exactly three	Yes
“If exactly three women are smokers, then exactly three smokers are women.”	
Few	No
“If few women are smokers, then few smokers are women”	
No	Yes
“If no women are smokers, then no smokers are women.”	
More than two	Yes
“If more than two women are smokers, then more than two smokers are women.”	
Some	Yes
“If some women are smokers, then some smokers are women”	
Three	Yes
“If three women are smokers, then three smokers are women”	
All	No
“If all women are smokers, then all smokers are women”	
Most	No
“If most women are smokers, then most smokers are women.”	
Antisymmetric:δ *is antisymmetric iff for all A,B, “If* δ*A are B and* δ*B are A, then A=B” is true*	
At most one	No
“If at most one woman is a smoker and at most one smoker is a woman, then all women are smokers and all smokers are women.”	
Exactly three	No
“If exactly three women are smokers and exactly three smokers are women, then all women are smokers and all smokers are women.”	
Few	No
“If few women are smokers and few smokers are women, then all women are smokers and all smokers are women.”	
No	No
“If no women are smokers and no smokers are women, then all women are smokers and all smokers are women.”	
More than two	No

"If more than two women are smokers and more than two smokers are women then all women are smokers and all smokers are women."	
Some	No
"If some women are smokers and some smokers are women, then all women are smokers and all smokers are women."	
Three	No
"If three women are smokers and three smokers are women then all women are smokers and all smokers are women."	
All	Yes
"If all women are smokers and all smokers are women, then all women are smokers and all smokers are women."	
Most	No
"If most women are smokers and most smokers are women, then all women are smokers and all smokers are women."	
Transitive:δ *is transitive iff for all A, B, and C, "If* δ*A are B and* δ*B are C, then* δ*A are C" is true*	
At most one	No
"If at most one woman is a smoker and at most one smoker is a student, then at most one woman is a student."	
Exactly three	No
"If exactly three women are smokers and exactly three smokers are students, then exactly three women are students."	
Few	No
"If few women are smokers and few smokers are students, then few women are students."	
No	No
"If no women are smokers and no smokers are students, then no women are students."	
More than two	No
"If more than two women are smokers and more than two smokers are students then more than two women are students"	
Some	No
"If some women are smokers and some smokers are students, then some women are students."	
Three	No
"If three women are smokers and three smokers are students then three women are students"	
All	Yes
"If all women are smokers and all smokers are students, then all women are students."	
Most	No
"If most women are smokers and most smokers are students, then most women are students."	
Conservative: δ *is conservative iff for all A,B, "*δ*A are B iff* δ*A are A∩B" is true.*	

At most one	Yes
"If at most one woman is a smoker then at most one woman is a woman smoker and vice versa."	
Exactly three	Yes
"If exactly three women are smokers then exactly three women are women smokers and vice versa."	
Few	Yes
"If few women are smokers then few women are women smokers and vice versa."	
No	Yes
"If no women are smokers then no woman is a woman smoker and vice versa."	
More than two	Yes
"If more than two women are smokers then more than two women are women smokers and vice versa."	
Some	Yes
"If some women are smokers then some women are women smokers and vice versa."	
Three	Yes
"If three women are smokers then three women are women smokers and vice versa."	
All	Yes
"If all women are smokers then all women are women smokers and vice versa."	
Most	Yes
"If most women are smokers then most women are women smokers and vice versa."	
Left upward monotone: δ *is left upward monotone iff for all A, B and C, "If all A are B and* δ*A are C, then* δ*B are C" is true.*	
At most one	No
"If all women are smokers, and at most one woman is a student, then at most one smoker is a student"	
Exactly three	No
"If all women are smokers, and exactly three women are students, then exactly three smokers are students"	
Few	No
"If all women are smokers, and few women are students, then few smokers are students"	
No	No
"If all women are smokers, and no women are students, then no smokers are students"	
More than two	Yes
"If all women are smokers, and more than two women are students, then more than two smokers are students"	
Some	Yes
"If all women are smokers, and some women are students, then some smokers are students"	

Three	Yes
"If all women are smokers, and three women are students, then three smokers are students"	
All	No
"If all women are smokers, and all women are students, then all smokers are students"	
Most	No
"If all women are smokers, and most women are students, then most smokers are students"	
Left downward monotone: δ *is left downward monotone iff for all A,B and C, "If all A are B and* δ*B are C, then* δ*A are C" is true.*	
At most one	Yes
"If all women are smokers, and at most one smoker is a student, then at most one woman is a student"	
Exactly three	No
"If all women are smokers, and exactly three smokers are students, then exactly three women are students"	
Few	Yes
"If all women are smokers, and few smokers are students, then few women are students"	
No	Yes
"If all women are smokers, and no smokers are students, then no women are students"	
More than two	No
"If all women are smokers, and more than two smokers are students, then more than two women are students"	
Some	No
"If all women are smokers, and some smokers are students, then some women are students"	
Three	No
"If all women are smokers, and three smokers are students, then three women are students"	
All	Yes
"If all women are smokers, and all smokers are students, then all women are students"	
Most	No
"If all women are smokers, and most smokers are students, then most women are students"	
Right upward monotone:δ *is right upward monotone iff for all A, B and C, "If all A are B and* δ*C are A, then* δ*C are B" is true.*	
At most one	No
"If all women are smokers, and at most one student is a woman, then at most one student is a smoker."	
Exactly three	No
"If all women are smokers, and exactly three students are women, then exactly three students are smokers."	

Few	No
“If all women are smokers, and few students are women, then few students are smokers.”	
No	No
“If all women are smokers, and no students are women, then no students are smokers”	
More than two	Yes
“If all women are smokers, and more than two students are women, then more than two students are smokers”	
Some	Yes
“If all women are smokers, and some students are women, then some students are smokers”	
Three	Yes
“If all women are smokers, and three students are women, then three students are smokers.”	
All	Yes
“If all women are smokers, and all students are women, then all students are smokers”	
Most	Yes
“If all women are smokers, and most students are women, then most students are smokers.”	
Right downward monotone: δ *is right downward monotone iff for all A, B, and C, “If all A are B and* δ*C are B, then* δ*C are A” is true.*	
At most one	Yes
“If all women are smokers, and at most one student is a smoker, then at most one student is a woman.”	
Exactly three	No
“If all women are smokers, and exactly three students are smokers, then exactly three students are women.”	
Few	Yes
“If all women are smokers, and few students are smokers, then few students are women.”	
No	Yes
“If all women are smokers, and no students are smokers, then no students are women”	
More than two	No
“If all women are smokers, and more than two students are smokers, then more than two students are women”	
Some	No
“If all women are smokers, and some students are smokers, then some students are women”	
Three	No
“If all women are smokers, and three students are smokers, then three students are women.”	
All	No
“If all women are smokers, and all students are smokers, then all students are women”	
Most	No

"If all women are smokers, and most students are smokers, then most students are women."

Q/P	Some	Three	More than two	Most	All	Exactly three	At most one	No	Few
Reflexive	Yes	No	No	Yes	Yes	No	No	No	No
Irreflexive	No	No	No	No	No	No	No	Yes	Yes
Symmetric	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
Antisymmetric	No	No	No	No	Yes	No	No	No	No
Transitive	No	No	No	No	Yes	No	No	No	No
Conservative	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Left upward monotone	Yes	Yes	Yes	No	No	No	No	No	No
Left downward monotone	No	No	No	No	Yes	No	Yes	Yes	Yes
Right upward monotone	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Right downward monotone	No	No	No	No	No	No	Yes	Yes	Yes

Exercise on "there-insertion", p. 152:

H&K suggest that the characteristic feature of determiners that permits them to appear in the *there*-associate position in the "there is…" construction is some mathematical property as we've examined above, and suggest attempting to characterize the class of such determiners using those properties. First, let's try to determine what the class actually is (given the list of determiners we've tested):

1. (a) There is at most one man in the room.
   (b) There are exactly three men in the room.
   (c) There are few men in the room.
   (d) There are no men in the room.
   (e) There are more than two men in the room.
   (f) There are some men in the room.
   (g) There are three men in the room.
   (h) *There are all men in the room.
   (i) *There are most men in the room.

The problem is, there's no property that groups "all" and "most" together to the exclusion of everything else (if the properties are in fact the way I've represented them here; my reasoning may likely be faulty). The most promising candidates look like either "reflexivity" or "symmetry", with the exception of "some" in the first case and "few" in the second case. Let's say that I've gotten the interpretation of "few" wrong; it's not a statement about a proportion of a set, but rather an absolute meaning, say, "less than six". If that's the case, then it **is** symmetric (if less than six women are smokers, then less than six smokers are women), and we'll be able to use symmetry to define our "there"-insertion context.

Exercise on negative polarity, p. 153.

Let's do the same thing we did above for there-insertion, checking out which determiners above license the item H&K give, "every":

2. (a) At most one man has ever been to the moon.
   (b) ??Exactly three men have ever been to the moon.
   (c) Few men have ever been to the moon.
   (d) No men have ever been to the moon.
   (e) ??More than two men have ever been to the moon.
   (f) ??Some men have ever been to the moon.
   (g) ??Three men have ever been to the moon.
   (h) ??All men have ever been to the moon.
   (i) ??Most men have ever been to the moon.

This is more straightforward: it looks like a determiner must be right downward monotone in order to license a NPI.