Semantic Theory 2025: Exercise 9 Key

Question 1

Consider the following sentences:

i. *Either John is out of hay or his donkey is eating in the stable.*

ii. *Either John has no donkey or his donkey is eating in the stable.*

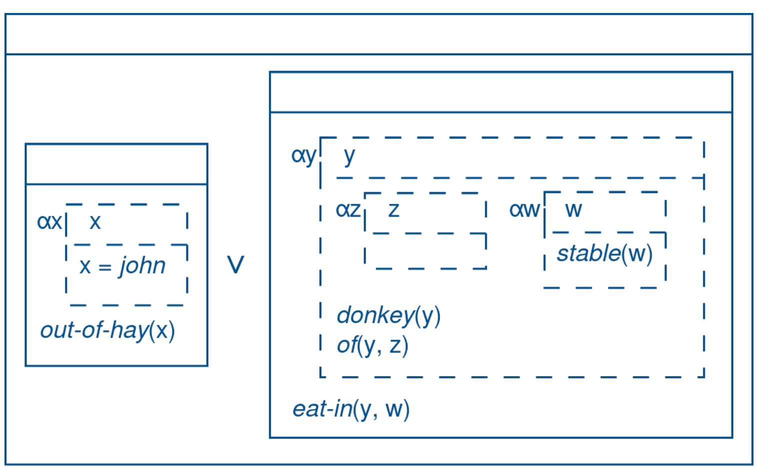
a. Specify the presuppositions of (i) and (ii)—i.e. which presuppositions are projected to the sentence level? What is the difference between the two sentences?

   i. "*There is someone named John*", "*there is a donkey that John owns*", "*there is a stable*".

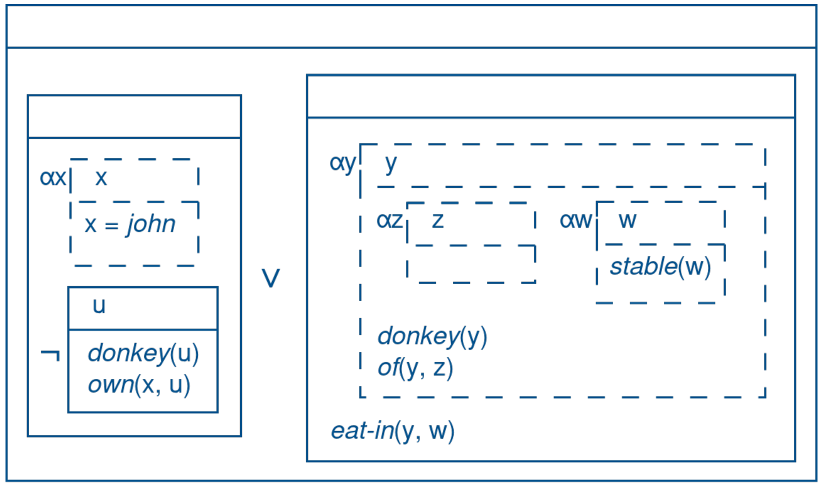
   ii. "*There is someone named John*", "*there is a stable*". The presupposition "*there is a donkey that John owns*" does not project in this sentence, because it is filtered by the left-hand disjunct ("*John has no donkey*").

b. Give proto-DRSs for (i) and (ii). You can represent "is out of hay" by the one place predicate *out-of-hay*(x) and "is eating in" by the two place predicate *eat-in*(x, y).

   i.

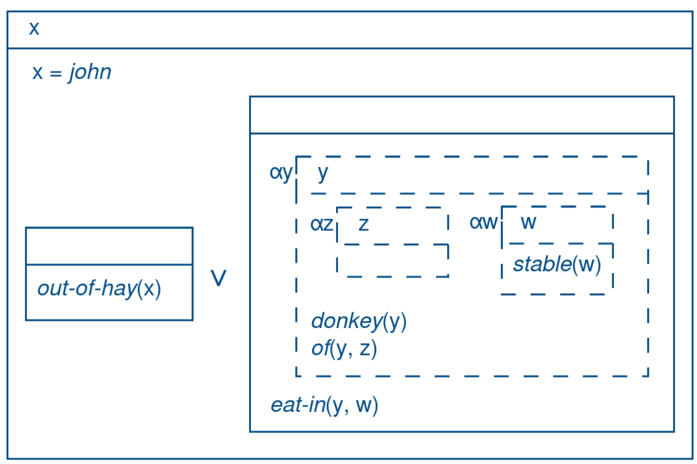


ii.

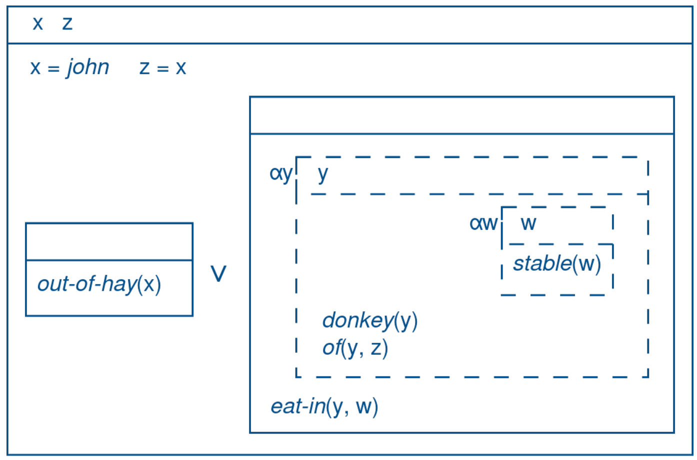


c. Resolve the two proto-DRSs. Explicitly describe the applied resolution constraints you apply.

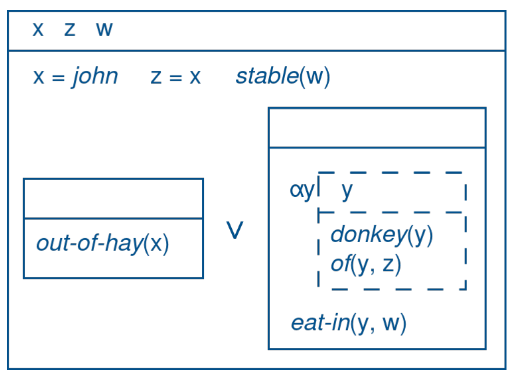
i. First, we accommodate αx, because there is no anaphor it can bind to. The highest possible DRS is preferred for accommodation, so we accommodate in the top-level DRS:



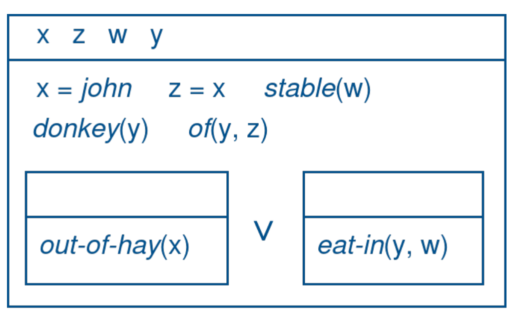
To resolve an α-DRS, its conditions must be α-free, so we have to resolve αz and αw before αy. We can resolve αz by binding to x (binding is preferred over accommodation):



There is no possible anaphor for αw, so we resolve through accommodation. Again, the highest possible DRS is preferred for accommodation:

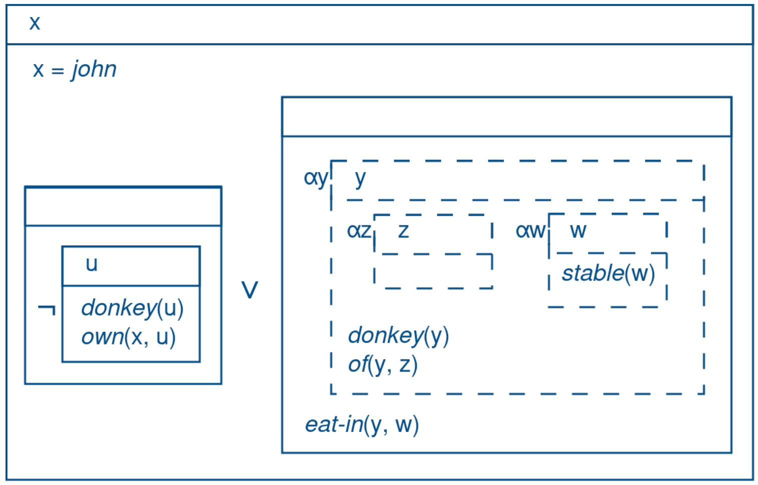


Now we can resolve αy. There is no possible anaphor, so we again resolve through accommodation:

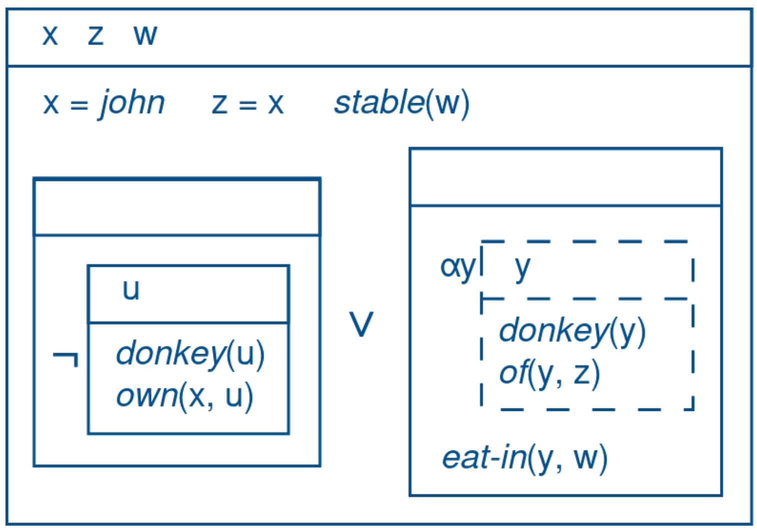


This is truth-conditionally equivalent to the FOL statement:
$\exists y \exists w[\mathit{donkey}(y) \wedge \mathit{of}(y, j') \wedge \mathit{stable}(w) \wedge (\mathit{out\text{-}of\text{-}hay}(j') \vee \mathit{eat\text{-}in}(y, w))]$

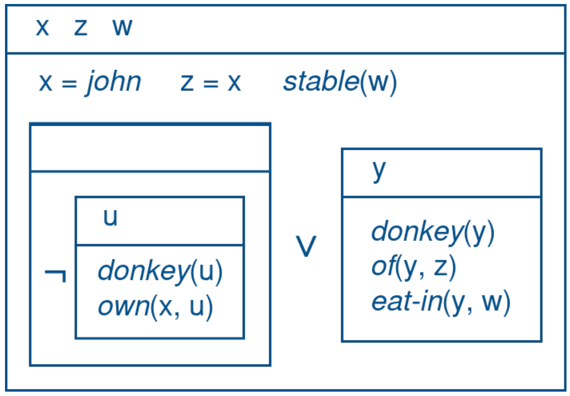
ii. We resolve αx as in (i):



αz and αw can also be resolved as in (i):



As in (i), there is no possible anaphor for αy (u is inaccessible), so we must resolve through accommodation. However, we cannot accommodate αy in the top-level DRS, because this would violate the local consistency constraint (no sub-DRS can be inconsistent with any superordinate DRS): $\neg[\{u\} \mid \{donkey(y), own(x, u)\}]$ would be inconsistent with the conditions $donkey(y)$, $of(y, z)$, $x = john$, $z = x$. So we must accommodate αy at the next-highest possible DRS:



This is truth-conditionally equivalent to the FOL statement:
$\exists w[stable(w) \wedge (\neg\exists u[donkey(u) \wedge own(j', u)] \vee \exists y[donkey(y) \wedge of(y, j') \wedge eat\text{-}in(y, w)])]$

Crucially, John's donkey is not anaphorically available to the subsequent discourse, unlike in (i).