LING 130: Semantics: Meaning in Language
Problem Set #4:
DRT and DPL
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DUE: April 13, 2010

1 Discourse Representation Theory

Provide the DRS (box) for each of the following discourses. For this exercise, it's ok to hide some information in a predicate. For example, *stands next to the tv* can be treated as a single predicate *stand(x)*. You should also treat *a slice of pumpkin pie* as a predicate (ex. *slice_pie(x)* means *x is a slice of pumpkin pie*).

1. Mary didn't love John. She adored him. He ignored her and she moved away.

2. A baby stands next to the tv. She dances.

3. Every student who ate a slice of pumpkin pie loved it.

2 Dynamic Predicate Logic

Provide the DPL interpretation for each of the following formulas.

1. $\exists x[Px \land Qx] \land Rx$

2. $\neg \exists x Px \lor Qx$ (Hint: This is equivalent to another formula we saw in class! You can either give the interpretation for this formula as it is, or you can convert it to the other formula. If you convert it, you must explain why these two formulas are equivalent in a short, informal proof.)