

Ex. 1

Let's consider the grammar

S	→	NP VP	Det	→	a the
NP	→	Det N'	N	→	girl boy
VP	→	V_i	V_i	→	sleeps snores
N'	→	N' Rel			
		N			
Rel	→	who V_i			

1. Give the syntax trees for the two sentences (1a,b).
 - (1) a. A boy sleeps.
 - b. The girl who sleeps snores.
2. Provide the lambda-terms and the composition rules to be associated with the grammar to offer a compositional analysis for (1a).
3. Let's assume that we adopt Russel's method to represent the unicity presupposition that comes along with (1b) (it boils down to representing (1b) as a paraphrase of (2)). Provide the lambda-terms and the composition rules to make sure the fragment includes (1b).
 - (2) There exists a girl who snores and no other girl than her snores.
4. The previous analysis assumes that we are dealing with a so-called *restrictive* relative clause. What amendments should be proposed (at all levels) for our fragment to include also *appositive* (or *non restrictive*) relatives clauses, as in (3)?
 - (3) The girl, who sleeps, snores.
5. Our previous treatment dealt with relative clauses without taking into account the fact that most syntactic theories suppose the presence of a gap (and/or a trace) in relative clauses. Assuming that the coindexation between the trace and its antecedent is given on the syntactic tree (in other words it's computed elsewhere), provide all necessary amendments of the fragment to include (4).
 - (4) [The boy]_i who Mary knows t_i sleeps.