## Q1.

In this question, you are asked to complete the missing parts in the derivation of the following sentence we did in class:

## (1) John killed Smith with a knife.

Remember that we integrated the past tense -ed into the analysis, as a function taking the Verb Phrase (VP) as argument.

Here is a derivation tree for the example. Your task is to fill in the missing slots  $X_n$ .

 $\exists e.killing'e \land patient'es' \land (\exists x.knife'x \land instr'ex) \land agent'ej'$ 

