3.

3.1.

(1) a. [S The doctor would prefer [S' for John to stay in the hospital]].
     b. [S He didn't ask [S' if she would go there]].
     c. [S All kids must [VP know [S' that they are loved by their parents]]].
     d. I know [NP a man [S' that kissed Mary]].

(2) Phrase Structure Rules:
     a. S   NP   INFL   VP
     b. VP   V   S'
     c. S'   COMP   S
     d. NP   Det   N   S'

(3) a. John thinks [S' that Mary told the police [S' that Bill has committed the crime]].
     b. This is [NP a man [S' that feeds [NP the cat [S' that chased [NP the mouse [S' that ate the rice]]]]]].

3.2.

(4)   VP V (NP) (PP) (PP) (Measure) S

(5)   -criterion
       Thematic requirement on the predicates as basic lexical property
       Thematic matching between predicates and its syntactic arguments

(6) Projection Principle:
       If a predicate selects   in the lexicon,   is selected in syntax as well.

3.3.

(7) a. V: [VP destroy [NP the city]]
        V: [VP envy [NP others]]
     b. N: [NP destruction (of) [NP the city]]
     c. A: [AP afraid (of) [NP death]]
        A: [AP envious (of) [NP others]]
     d. P: [PP in [NP the box]]

(8) a. V: [VP believe [S' that he is honest]]
     b. N: [NP belief [S' that he is honest]]
     c. A: [AP aware [S' that he is honest]]
     d. P: [PP except [S' that he is honest]]

(9) a. V: [VP may [V' destroy the city]]
     b. N: [NP the [N' destruction of the city]]
     c. A: [AP much [A' afraid of death]]
     d. P: [PP right [P' on the table]]

(10) X-bar schemata:
     a. X"   Specifier   X'
     b. X'   X   Complement