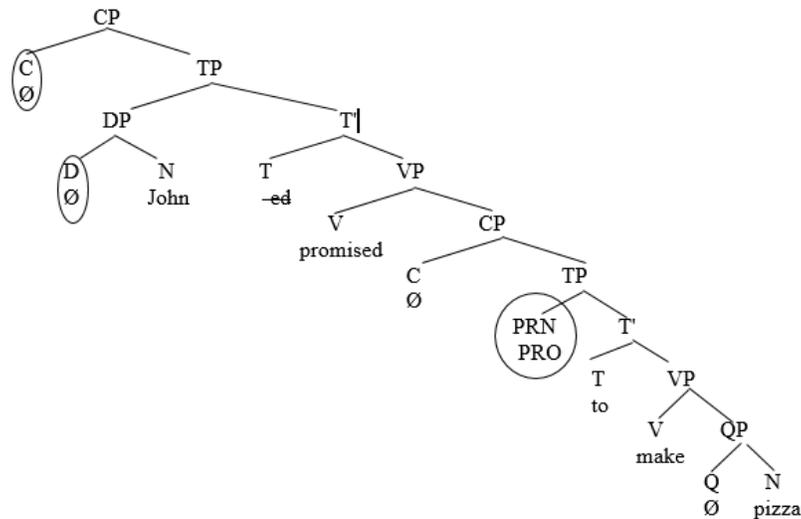


## Sample Arguments to Support the Existence of Null Elements



1. Give one complete argument for the existence of the circled phonetically null D in the tree above.

*John and the chef promised to make a pizza* is grammatical. Therefore it is possible to coordinate *John* with *the chef*.

- The Co-ordination Condition states that only like constituents can be conjoined. Since *the chef* is a DP, then *John* must be a DP.
- The Headedness Principle requires all constituents to have appropriate lexical heads. Therefore, if *John* is a DP, then it must have lexical head which must be a D.

2. Give one complete argument for the existence of the circled phonetically null T in the tree above.

A TP must have a lexical head and the semantic content of the tense must be marked somewhere and tense-type semantics is otherwise in the T.

*John promised to make a pizza and will make one tonight* is grammatical. Therefore, it possible to co-ordinate *promised to make a pizza* with a T' *will make one tonight*

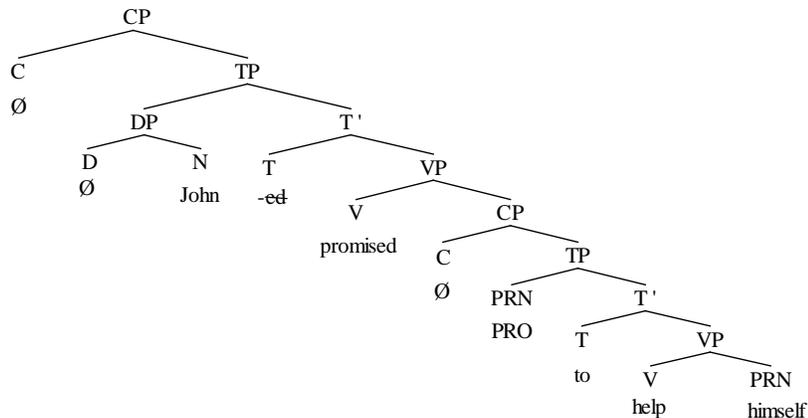
- The Co-ordination Condition states that only like constituents can be conjoined. Since *will make one tonight* is a T' then *promised to make a pizza* must be a T'.
- The Headedness Principle requires all constituents to have appropriate lexical heads. Therefore, if *promised to make a pizza* is a T', then it must have lexical head which must be a T.

3. Make an argument for the existence of the PRO in this sentence.

There are a couple of ways to make an argument for the existence of this PRO. Both methods are more indirect than our arguments for (1a) and (1b), but they rely on the same kind of argumentation:

#### Argument 1

We want to justify the PRO in (1) "John promised to make pizza." Consider the structurally parallel sentence (1') "John promised to help himself."



- (a) Argument that there is a null element in Spec of TP2:

The anaphor *himself* must have an antecedent. By the binding theory, that antecedent (a-1) must c-command *himself* and (a-2) must be in the smallest TP that contains *himself*, which is TP2 in this tree. There is no non-null antecedent meeting these conditions, so we must set up a null antecedent, call it X. The only open slot for X to appear in is spec of TP2, so we must have a null antecedent X as spec of TP2.

- (b) Argument that this null element X must be a PRO:

In (1'), *himself* is unambiguously coreferential with the main clause subject *John*. *John* can't be the direct antecedent of *himself*, since it's outside TP2. Our system must therefore require that *John* be coreferential with the null antecedent X that we demonstrated in argument (a). PRO is the name we gave to null pronouns with this property: PRO is a phonetically null pronoun that serves as the subject of a complement clause of a control verb and that is required to be coreferent with the subject of that control verb.

- (c) Argument that this analysis applies to (1) as well as to (1'):

(1) and (1') are exactly structurally parallel, differing only in the choice of two lexical items. We therefore expect them to have the same structure, unless we find evidence they are acting differently.

Moreover, the semantics falls out correctly for both sentences—since in *John promised to make a pizza*, we must interpret the subject of *make a pizza* as being coreferential with *John*.