

## Verb Phrases

With many sentences, we can get ActiveVerbPhrase quickly

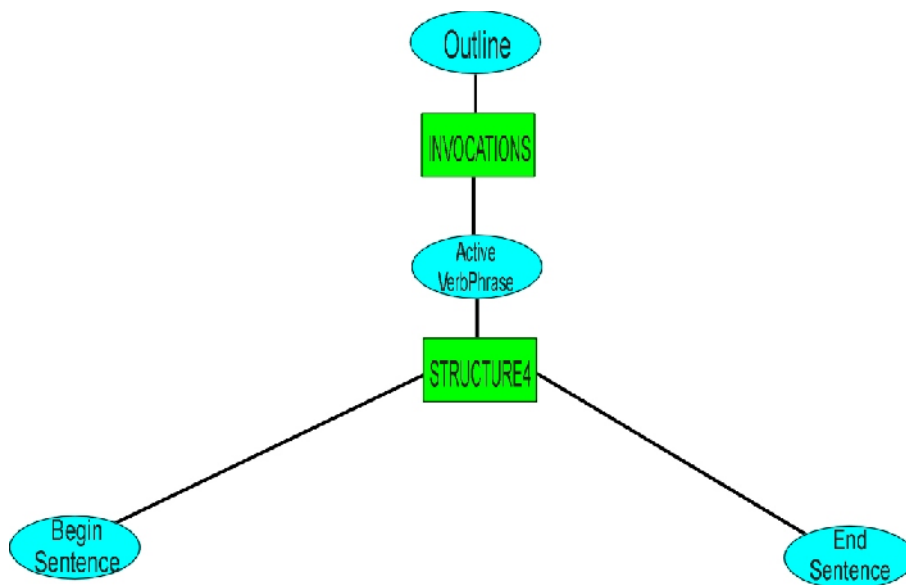
A shall depict....

This gives us number and tense, and if we don't find a conjunction or a relative or clausal pronoun (or an implied one) or a clausal noun, it must be the only verb in the sentence,

This sounds like outlining. We get a verb phrase, we try to find the shape of the sentence – we get another one, likewise. This would allow us to find implied relative pronouns.

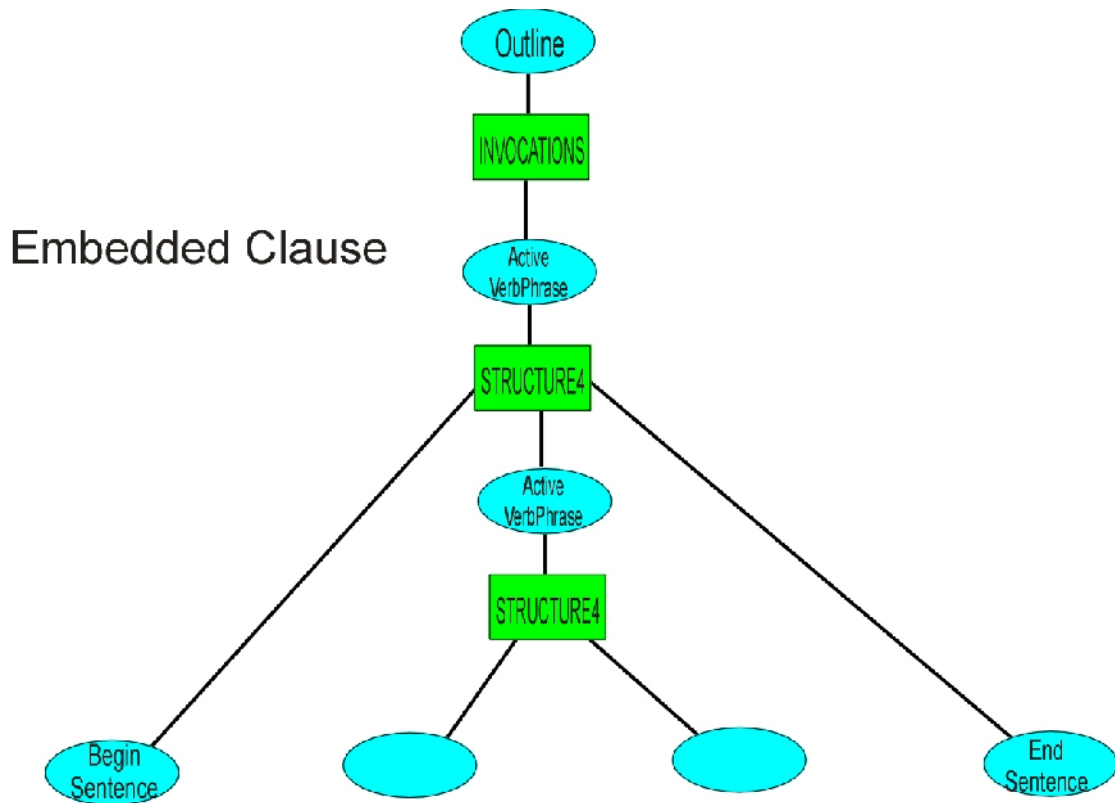
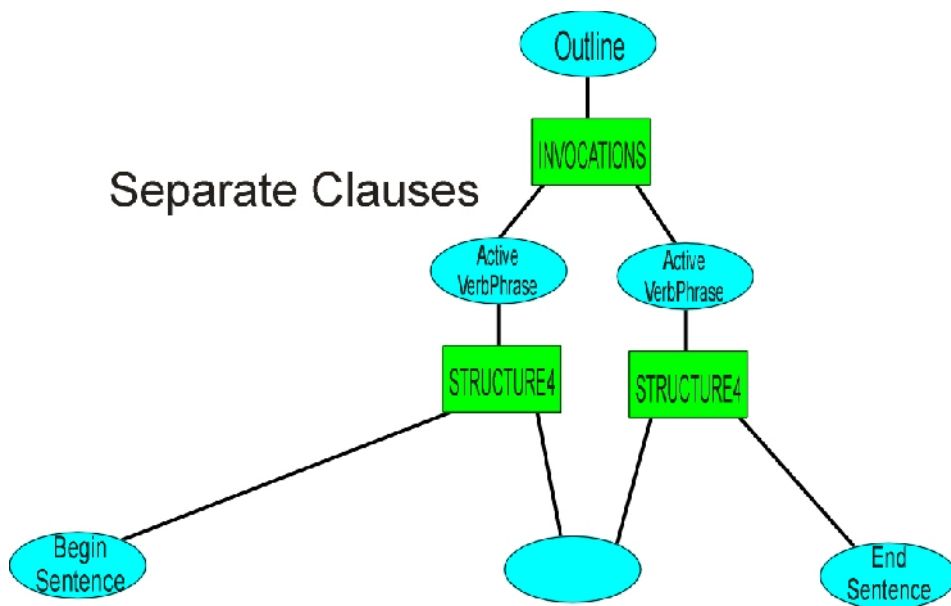
The system shall freeze at the point in time the fault occurs.

We first find “shall freeze” – we don't see any subordinate phrases or other reasons to limit the scope, so put a structure from one end to the other.



We then find “occurs”, and look for two things – a place to split with an implied relative pronoun, and whether the new clause is embedded in the original clause, or ends it. The method should not require the order of detection to be important.

There are two possibilities – separate clauses, or an embedded clause.



We need to find the starting point of the embedded clause, and its finishing point.  
With a sentence such as

The system shall freeze at the point in time the fault occurs with no loss of state information.

We would need to compare

“the fault occurs with no loss of state information”

With

“The system shall freeze with no loss of state information”

This combines top down and bottom up analysis – we could never have enough grammar patterns for a pure bottom up approach – now we have some idea what we are looking for in a small area.

## Patterns

AVP – Active Verb Phrase

PVP – Active Verb Phrase

ANT – And Then

SP – Subordinate Phrase

RPP – Relative Pronoun Phrase

LS – List Starter

NO BO – Not Only But Also

SCP – Semicolon Phrase

Null (heading)

AVP

AVP AVP

SP AVP AVP

AVP SP AVP

AVP RPP AVP

AVP RPP AVP AND AVP

AVP AND AVP

AVP ANT AVP

AVP AND PVP

AVP LS

SP AVP NO BO AVP

PVP

PVP AND AVP

SP PVP COMMA AVP

SP AVP COMMA PVP

AVP SCP AVP RP AVP

RP AVP COMMA AVP AND AVP

AVP SP AVP AND AVP

AVP RP AVP AND RP AVP

### **AVP AVP Pattern**

This could be

The company he was hoping to buy was sold – embedded relative pronoun clause

Or

The system shall freeze the process at the point the fault occurs. – embedded “at which” clause

Or

He knows the company is sold. – clausal verb