

[CS421 Yoshii - Hint on Left Factoring](#)
[Email the left factored rules to me before Week12A.](#)

Recursive Descent Parsing requires each rule to have a unique start.

Keep it one rule until it starts to be different

```
2 <s> ::= [CONNECTOR] <noun> SUBJECT <verb> <tense> PERIOD
3 <s> ::= [CONNECTOR] <noun> SUBJECT <noun> <be> PERIOD
4 <s> ::= [CONNECTOR] <noun> SUBJECT <noun> DESTINATION <verb> <tense>
PERIOD
5 <s> ::= [CONNECTOR] <noun> SUBJECT <noun> OBJECT <verb> <tense> PERIOD
6 <s> ::= [CONNECTOR] <noun> SUBJECT <noun> OBJECT <noun> DESTINATION
<verb> <tense> PERIOD
```

UPDATED GRAMMAR RULES FOR TRANSLATOR:

Using #getEword#, and #gen#

- 1 <story> ::= <s> { <s> }
- 2 <s> ::= [CONNECTOR #getEword# #gen("CONNECTOR")#] <noun> #getEword# SUBJECT
#gen("ACTOR")# <after subject>
- 3 <after subject> ::= <verb> #getEword# #gen("ACTION")# <tense> #gen("TENSE")# PERIOD |
<noun> #getEword# <after noun>
- 4 <after noun> ::= <be> #gen("DESCRIPTION")# #gen("TENSE")# PERIOD | DESTINATION
#gen("TO")# <verb> #getEword# #gen("ACTION")# <tense> #gen("TENSE")# PERIOD | OBJECT
#gen("OBJECT")# <after object>
- 5 <after object> ::= <verb> #getEword# #gen("ACTION")# <tense> #gen("TENSE")# PERIOD |
<noun> #getEword# DESTINATION #gen("TO")# <verb> #getEword# #gen("ACTION")# <tense>
#gen("TENSE")# PERIOD
- 6 <noun> ::= WORD1 | PRONOUN
- 7 <verb> ::= WORD2
- 8 <be> ::= IS | WAS
- 9 <tense> ::= VERBPAST | VERBPASTNEG | VERB | VERBNEG