## Factored Rules w/ Semantic Routines (BNF)

## **Left-Factored Rules**

```
1 <story> ::= <s> { <s> } // stay in the loop as long as a possible start
           // of <s> is the next token (note it can be CONNECTOR or WORD1 or PRONOUN)
<s>::= [CONNECTOR] <noun> SUBJECT <after subject>
<after subject> ::= <verb> <tense> PERIOD | <noun> <after noun>
<after noun> ::= <be> PERIOD | DESTINATION <verb> <tense> PERIOD | OBJECT <after object>
<after object> ::= <verb> <tense> PERIOD | <noun> DESTINATION <verb> <tense> PERIOD
7 <noun> ::= WORD1 | PRONOUN
8 < verb > ::= WORD2
9 <be> ::= IS | WAS
10 <tense> := VERBPAST | VERBPASTNEG | VERB | VERBNEG
Updated Rules (inserting semantic routines)
<s>::= [CONNECTOR #getEword# #gen("CONNECTOR")#]
       <noun> #getEword# SUBJECT #gen("ACTOR")# <after subject>
    <after subject> ::= <verb> #getEword# #gen("ACTION")#
                     <tense> #gen("TENSE")# PERIOD
    <after subject> ::= <noun> #getEword# <after noun>
         <after noun> ::= <be> #gen("DESCRIPTION")# #gen("TENSE")# PERIOD
         <after noun> ::= DESTINATION #gen("TO")#
                        <verb>#getEword# #gen("ACTION")#
                        <tense> #gen("TENSE")# PERIOD
         <after noun> ::= OBJECT #gen("OBJECT")# <after object>
              <after object> ::= <verb> #getEword# #gen("ACTION")#
                              <tense> #gen("TENSE")# PERIOD
              <after object>::= <noun> #getEword# DESTINATION #gen("TO")#
                              <verb> #getEword# #gen("ACTION")#
                              <tense> #gen("TENSE")# PERIOD
```