Q-Grammars

Q-Grammars have the following properties:

- The right-hand side of each production is either ε (empty), or it begins with a terminal symbol
- Productions for the same left-hand side nonterminal symbol have disjoint selection sets

FOLLOW and SELECT sets

Given a context-free grammar with starting symbol <S> and a nonterminal <X>, FOLLOW(<X>) is the set of terminal symbols that can immediately follow an <X> in any intermediate string derivable from <S>-l.

SELECT(<P>), the selection set for production <P>, defines the inputs for which a pushdown control must apply production <P>.

For productions of the form <A> -> a α, where 'a' is a terminal symbol and α is a string of terminal and nonterminal symbols

SELECT(<A> -> a α) = { a }

and for productions of the form <A> -> ε

SELECT(<A> -> ε) = FOLLOW(<A>)