

# LR(0) → LR(k) Parsing 5/31

$C_k$  or  $\forall p \in C_0$

if  $[A \rightarrow \alpha \cdot \beta] \in p \rightarrow$  shift  $a$

$[A \rightarrow \alpha \cdot] \in p \rightarrow$  reduce  $a$   
 $\forall a \in \Sigma^{\leq k}$

Ex  $G_{abc}$ :  
 $S' \rightarrow S$   
 $S \rightarrow aA | bB$   
 $A \rightarrow \epsilon | cAd$   
 $B \rightarrow \epsilon | cBd$

$G_{ab}$ :  
 $S' \rightarrow S$   
 $S \rightarrow aA | bB$   
 $A \rightarrow c | dAd$   
 $B \rightarrow c | dBa$

not LR(0)

but SLR(1)

LR(0) grammar

LR(0) parsing State reduce  
 $LR(0) \subset C_0$  no lookahead

SLR(1) " "  $\in C_0$   ~~$\forall a \in \text{Follow}(A)$~~ , reduce  $A \rightarrow \alpha$  for  $a \in \text{Follow}(A)$

LALR(1) " "  $\in C_0$

reduce  $A \rightarrow \alpha$ , for  $[A \rightarrow \alpha \cdot a] \in p \in C_0$   
 $a \in \Sigma^{\leq k}$

LR(1) "  $LR(1) \subset C_1$

항목의 이동

$[S' \rightarrow S, \epsilon]$  은 시작 항목

$[A \rightarrow \alpha \cdot \beta \beta] \xrightarrow{*} [B \rightarrow \cdot \omega, z]$   $z \in \text{First}_n(\beta \gamma)$

$[A \rightarrow \alpha \cdot \beta, \gamma] \xrightarrow{*} [A \rightarrow \alpha \cdot \beta, \gamma]$

