

$$\begin{array}{lcl}
S' & \rightarrow & S \\
S & \rightarrow & MM' \\
M & \rightarrow & LM \mid m \\
L & \rightarrow & LL' \mid l \\
L' & \rightarrow & LL' \mid l' \\
M' & \rightarrow & RM' \mid m \\
R & \rightarrow & RR' \mid r \\
R' & \rightarrow & RR' \mid r'
\end{array}$$

- $LR(0)(\varepsilon) = \{$

$[S' \rightarrow \cdot S],$	start rule
$[S \rightarrow \cdot MM'],$	ε -extension
$[M \rightarrow \cdot LM], [M \rightarrow \cdot m]$	ε -extension
$[L \rightarrow \cdot LL'], [L \rightarrow \cdot l]$	ε -extension

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- $LR(0)(S) = \{S' \rightarrow S \cdot\}$
- $LR(0)(L) = \{$

$[M \rightarrow L \cdot M],$	
$[L \rightarrow L \cdot L'], [L \rightarrow \cdot LL'], [L \rightarrow \cdot l]$	
$[M \rightarrow \cdot LM], [M \rightarrow \cdot m],$	ε -extension
$[L' \rightarrow \cdot LL'], [L' \rightarrow \cdot l']$	ε -extension

 $\}$
- $LR(0)(LM) = \{[M \rightarrow LM \cdot]\}$
- $LR(0)(LL') = \{[L \rightarrow LL' \cdot]\}$
- $LR(0)(LL) = \{$

$[M \rightarrow L \cdot M],$	
$[L' \rightarrow L \cdot L']$	
$[L \rightarrow L \cdot L']$	
$[M \rightarrow \cdot LM], [M \rightarrow \cdot m],$	ε -extension
$[L' \rightarrow \cdot LL'], [L' \rightarrow \cdot l']$	ε -extension
$[L \rightarrow \cdot LL'], [L \rightarrow \cdot l]$	ε -extension

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- $LR(0)(LLL) = LR(0)(LLL) = \dots$
- $LR(0)(LM) = LR(0)(LLM) = \dots = LR(0)(LLLM) = \dots$
- $LR(0)(LLL') = \{[L \rightarrow LL' \cdot], [L' \rightarrow LL' \cdot]\} = LR(0)(LLLL') = \dots$
- $LR(0)(l) = \{[L \rightarrow l \cdot]\}$
- $LR(0)(ll') = LR(0)(LLl') = \dots = \{[L' \rightarrow l' \cdot]\}$
- $LR(0)(m) = \{[M \rightarrow m \cdot]\}$
- $LR(0)(Lm) = LR(0)(LLm) = \dots = \{[M \rightarrow m \cdot]\}$

- $LR(0)(M) = \{$

$[S \rightarrow M \cdot M'],$	
$[M' \rightarrow \cdot RM'], [M' \rightarrow \cdot m]$	ε -extension
$[R \rightarrow \cdot RR'], [R \rightarrow \cdot r]$	ε -extension

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- $LR(0)(MM') = \{[S \rightarrow MM' \cdot]\}$
- $LR(0)(MR) = \{$

$[M' \rightarrow R \cdot M'],$	
$[R \rightarrow R \cdot R'],$	
$[M' \rightarrow \cdot RM'], [M' \rightarrow \cdot m]$	ε -extension
$[R' \rightarrow \cdot RR'], [R' \rightarrow \cdot r']$	ε -extension
$[R \rightarrow \cdot RR'], [R \rightarrow \cdot r]$	ε -extension

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- $LR(0)(MRM') = \{[M' \rightarrow RM'\cdot]\}$
- $LR(0)(MRR') = \{[R \rightarrow RR'\cdot]\}$
- $LR(0)(MRR) = \{$

$[R \rightarrow R \cdot R'], [R' \rightarrow R \cdot R']$	
$[R' \rightarrow \cdot RR'], [R' \rightarrow \cdot r']$	ε -extension
$[R \rightarrow \cdot RR'], [R \rightarrow \cdot r]$	ε -extension

 $\}$
- $LR(0)(MRR) = LR(0)(MRRR) = \dots$
- $LR(0)(MRR') = \{[R \rightarrow RR'\cdot]\}$
- $LR(0)(MRR') = \{[R \rightarrow RR'\cdot], [R' \rightarrow RR'\cdot]\} = LR(0)(MRRR') = LR(0)(MRRRR') = \dots$
- $LR(0)(Mr) = \{[R \rightarrow r\cdot]\}$
- $LR(0)(Mm) = \{[M' \rightarrow m\cdot]\}$
- $LR(0)(MRr') = LR(0)(MRRr') = \dots = \{[R' \rightarrow r'\cdot]\}$
- $LR(0)(MRr) = LR(0)(MRRr) = \dots = \{[R \rightarrow r\cdot]\}$
- $LR(0)(MRm) = LR(0)(MRRm) = \dots = \{[M' \rightarrow m\cdot]\}$