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function EARLEY-PARSE(words, grammar) returns chart

  ENQUEUE( $(\gamma \rightarrow \bullet S, [0, 0])$ , chart[0])
  for  $i \leftarrow$  from 0 to LENGTH(words) do
    for each state in chart[ $i$ ] do
      if INCOMPLETE?(state) and
        NEXT-CAT(state) is not a part of speech then
          PREDICTOR(state)
        elseif INCOMPLETE?(state) and
          NEXT-CAT(state) is a part of speech then
            SCANNER(state)
        else
          COMPLETER(state)
      end
    end
  return(chart)

procedure PREDICTOR( $(A \rightarrow \alpha \bullet B \beta, [i, j])$ )
  for each  $(B \rightarrow \gamma)$  in GRAMMAR-RULES-FOR( $B$ , grammar) do
    ENQUEUE( $(B \rightarrow \bullet \gamma, [j, j])$ , chart[ $j$ ])
  end

procedure SCANNER( $(A \rightarrow \alpha \bullet B \beta, [i, j])$ )
  if  $B \subset$  PARTS-OF-SPEECH(word[ $j$ ]) then
    ENQUEUE( $(B \rightarrow \text{word}[j], [j, j + 1])$ , chart[ $j + 1$ ])

procedure COMPLETER( $(B \rightarrow \gamma \bullet, [j, k])$ )
  for each  $(A \rightarrow \alpha \bullet B \beta, [i, j])$  in chart[ $j$ ] do
    ENQUEUE( $(A \rightarrow \alpha B \bullet \beta, [i, k])$ , chart[ $k$ ])
  end

procedure ENQUEUE(state, chart-entry)
  if state is not already in chart-entry then
    PUSH(state, chart-entry)
  end

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