

**S1 Algorithm. Text-production by simulated author.**

```
Input:  $p_{inf} = .6$ ;  $p_{dual} = .2$ ;  $p_{append} = .95$ ;  
min_length // minimum length of text to be produced  
theory // belief system of the author  
reach // reach threshold of the author  
Output: text  
begin  
  text =  $\leftarrow \emptyset$  ;  
  while length of text < min_length do  
    if random() <  $p_{inf}$  then  
      // Compose argument  
      sequence  $\leftarrow$  sample transitivity inference with true sentences according to  
        theory and within reach ;  
      sequence  $\leftarrow$  randomly paraphrase sentences in sequence ;  
      sequence  $\leftarrow$  randomly shuffle premises in sequence ;  
      if random() <  $p_{dual}$  then  
        | sequence  $\leftarrow$  append paraphrase of conclusion to sequence  
      end  
    else  
      // Compose fact  
      sequence  $\leftarrow$  sample single true sentence according to theory and within  
        reach ;  
      sequence  $\leftarrow$  randomly paraphrase sequence ;  
      if random() <  $p_{dual}$  then  
        | sequence  $\leftarrow$  append paraphrase of sequence to sequence  
      end  
    end  
    if random() <  $p_{append}$  then  
      // Append new sequence at end of text  
      text  $\leftarrow$  text + sequence;  
    else  
      // Insert sequence earlier  
      text1, text2  $\leftarrow$  split text randomly into two lists of sentences ;  
      text  $\leftarrow$  text1 + sequence + text2  
    end  
  end  
end
```