



A scientist lended a cat a donut *

det: 1
 pp: 2
 was: 3
 by: 4
 to: 5
 that: 6
 common_noun: 7
 proper_noun: 8
 v_trans_omissible: 9
 v_trans_omissible_pp: 10
 v_trans_not_omissible: 11
 v_trans_not_omissible_pp: 12
 v_cp_taking: 13
 v_inf_taking: 14
 v_unacc: 15
 v_unerg: 16
 v_inf: 17
 v_dat: 18
 v_dat_pp: 19
 v_unacc_pp: 20

np_det_seq = [0, 1, 0, 0, 1, 0, 1]
 np_prop_seq = [0, 0, 0, 0, 0, 0, 0]
 v_dat_seq = [0, 0, 1, 0, 0, 0, 0]
 np_det_left_seq = [1, 0, 0, 1, 0, 1, 0]
 np_two_before_seq = [0, 1, 0, 1, 0, 0, 0]
 np_before_seq = [0, 0, 1, 0, 1, 0, 0]
 np_after_seq = [0, 0, 1, 0, 0, 1, 0]

In bidirectional Encoder
 of
 Encoder-Decoder
 Transformer
 equivalent model

(A) = (np_det_left_seq & np_two_before_seq) = [0, 0, 0, 1, 0, 0, 0]
 (B) = (np_prop_seq & np_before_seq) = [0, 0, 0, 0, 0, 0, 0]
 np_np_seq = (A or B) = [0, 0, 0, 1, 0, 0, 0]
 np_np_any_before_seq = [1, 1, 1, 0, 0, 0, 0]
 np_v_dat_p_np_np = np_after_seq & v_dat_seq
 & np_before_seq & np_np_any_before_seq
 = [0, 0, 1, 0, 0, 0, 0]

*COGS official training data uses "lended", instead of "lent"