INTRODUCTION

CONCESSIVE CONNECTIVES (CC) such as ‘Nonetheless’ function to contrast current proposition with prior discourse[1], e.g.:

"Elizabeth had a history exam on Monday. She took the test and failed/aced it. Nonetheless, she went home and celebrated widely."

PREVIOUS ERP FINDINGS ON CC PROCESSING[2]

- Comprehenders use ‘even so’ to reverse expectations about upcoming words.
- N400 amplitude attenuation to coherent (under failed) critical words relative to incoherent (under ached) critical words.

IS THIS PREDICTION UPDATE FULLY INCREMENTAL?

- Related linguistic devices such as negation and quantifiers like ‘few’ and ‘rarely’ may not be processed fully incrementally.[1, but c.f. 4]
- Evidence suggests some predictive computations may take longer than others (e.g., using argument roles in verb prediction).[3]

QUESTION

How quickly can concessive connectives reverse predictions in real time?

METHODS

2 x 2 (Coherence x Distance) within participant design; n=27: RSVP (600ms SOA) 30 trials per condition (120 total) + 60 fillers. No commas in target sentences.

RESULTS

LONG DISTANCE

N400 and P600 effects observed for both types of stimuli, no significant coherence x distance interaction.

SHORT DISTANCE

DISCUSSION

N400 EFFECT expectation reversal function of concessive connectives incrementally updates linguistic predictions about upcoming words.

P600 EFFECT incongruity detection, in line with previous functional interpretations of P600.[6]

Both effects are present even when the comprehender has no clear expectation of Nonetheless in the target sentence.

OUTSTANDING QUESTIONS:

- Can other connectives be used to confirm or disconfirm predictions immediately?

FOLLOW-UP

Could the lack of distance x coherence interaction be due to the frequent occurrence of Nonetheless in the stimuli?

Methods

N=17. All stimuli in short condition; CC in half of the stimuli replaced with Therefore in place of Nonetheless.

Results

Significant effect of coherence in the N400 time window in the Nonetheless stimuli.

References