INTRODUCTION

• Readers adapt to difficult or initially unexpected syntactic structures after repeated exposure (Wells et al., 2009).

• Question: do L2 learners adapt?
  1. Error-based learning (Fine & Jaeger, 2013): non-frequent structures lead to a larger error, hence larger adaptation → L2 learners should adapt more strongly to infrequent structures than native speakers, as they have been less exposed to such infrequent structures.
  2. Resource-based adaptation (Sikos et al., 2016): adaptation requires resources. Processing and revision is less automatic in L2 learners (Pouzaz & Trueswell, 2015), so fewer resources may be available for adaptation → L2 learners should adapt less strongly than native speakers, especially to structures that are harder to revise.

• We compared adaptation to an easy (“and”-ambiguity, and/but condition) and a harder garden-path condition (filled-gap effect, what/whether condition) between native speakers and L2 learners.

EXPERIMENTAL CONDITIONS

What / Whether Condition
The nurse asked the doctor prescribed the medicine; after the patient left. The nurse asked whether the doctor prescribed the medicine; for the flu after the patient left.

In this example, readers initially predict what to be the direct object of prescribed, and when they encounter the medicine, leading to a longer reader time vs. the whether condition (filled-gap effect).

And / But Condition
The chef stirred the soup and the sauce; was stirred by the assistant. The chef stirred the soup, but the sauce was stirred by the assistant.

The preferred interpretation of and is an NP coordination. This will lead to difficulty at the disambiguating verb (was) versus the but control condition.

If processing difficulty affects expectation, we expect our L2 speakers to adapt more quickly in the and/but than in the what/whether conditions since (i) their L1 Spanish has and-coordination ambiguities, but no P-stranding (what-condition); (ii) what-conditions are harder to revise at the filled gap since the NP does not provide cues as to the correct analysis (that what is the object of a following proposition).

METHODS

• 40 native-English speakers and 39 Spanish intermediate L2 learners of English (most of intermediate proficiency as determined by LexTALE task, Lemhöfer & Broersma, 2012)

• Moving window self-paced reading task, non-cumulative display (Linger)

• Participants read 18 items per condition, interspersed among 72 distractor items

• Comprehension questions were asked after 50% of the items

DISCUSSION AND CONCLUSION

• Both native English and L2 speakers showed an increase in reading time at the point of disambiguation in both sentence types: both groups experienced difficulty when the sentence continuation was not compatible with the preferred structure (what as the object of the verb; and as coordinating two noun phrases)

• Native English speakers showed adaptation to the initially non-preferred structures (processing difficulty decreased as more ambiguous structures were seen)

• L2 learners of English did not show adaptation effects (even trended towards an anti-adaptation effect for the and/but sentences).

• Accuracy of comprehension questions showed that L2 learners still overall gathered the correct interpretation [mean proportion correct: and/but: Native: .88 (SD .11); L2: .83 (SD .11); what/whether: Native: .90 (SD .10); L2: .84 (SD .12)].

• Experiencing an error and obtaining the correct interpretation of the structure is not sufficient to adapt to a non-preferred syntactic structure.

REFERENCES