

## Contrastive informativity strength drives real-time language variation and change: an online study of the Spanish *habitual* in three dialectal varieties

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**Introduction.** Language variation is partially constrained by *unidirectional grammaticalization paths* ([1]). The Spanish Progressive-to-Imperfective shift evidences it: Spanish went from having only one general imperfective marker (the Simple Present (PRES)), expressing both *habitual* and *progressive* meanings to having two markers: PRES and a (newer) Present Progressive, PROG: [*estar* + V-ndo], which expressed only the *progressive* meaning (**emergence stage**). Over time, PRES and PROG became restricted to mutually exclusive meaning domains (**categorization stage**). This stage is expected to last until the *new marker* PROG gets reanalyzed as a general marker of imperfectivity (**generalization stage**) ([2]). Currently, Spanish is said to be in the **categorization stage**. However, *are there specific contexts of use that already allow PROG to convey a habitual meaning, thus pushing the shift towards the generalization stage?*

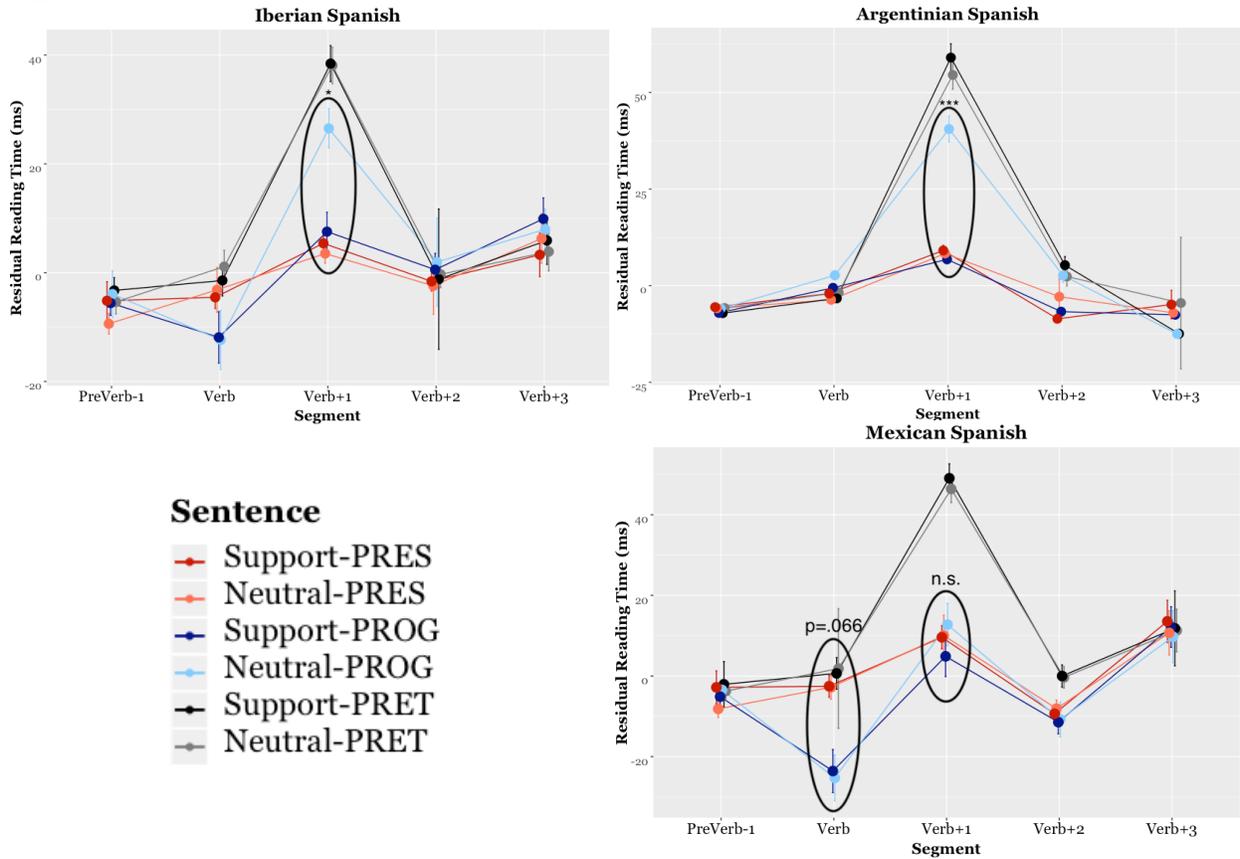
We take the context constraints pushing towards generalization to be rooted in the lexicalized presuppositional content independently associated with *estar*, the auxiliary verb in the Present Progressive marker. *Estar's* presupposition restricts the predicate to a specific circumstance of evaluation. In doing so, it triggers the construal of alternative situations at which the embedded proposition does not hold ([3], [4]). When PROG conveys a *progressive* meaning, the meaning contrast is absolute: now vs. “not now”. But if a new, *habitual* meaning is to arise in this marker, contextual support that enables the construal of alternatives is needed. Why would this more involved, contextually-supported use ever take hold? Greater informativity. The use of PROG conveys both the *habitual* meaning **and** the set of rejected alternatives. This maximizes context set restriction, thus proportionally increasing the informativity of the expression containing PROG, and making it overtime preferable to PRES use, which only conveys the *habitual* meaning. Greater informational value thus drives use preference of PROG over PRES, resulting in **generalization**. *Is this change observable in real-time? As comprehension unfolds?*

**The study.** We tested sentences containing three markers: PRES, PROG, and the Simple Past marker (PRET), as a baseline condition. Sentences were preceded either by an *alternative-supporting* or by an *alternative-neutral* context, in three Spanish varieties: Iberian, Argentinian, and Mexico City Spanish, using a Self-Paced Reading task. **Subjects:** 120 adult native speakers (40/variety). **Materials:** 180 test stimuli (2 Contexts x 3 Markers, 30 items per condition), and 90 fillers. See Table 1. **Predictions:** (a) an *alternative-supporting* context—that satisfies the presuppositional content of *estar*— favors PROG use vis-à-vis *alternative-neutral* contexts; (b) cross-variety differences are observable only in the direction of less context modulation for PROG.

**Results.** A GLMM on word-number and letter-length corrected residual reading times revealed: **1)** longer RTs for PRET over PRES/PROG across all varieties in both context types, evidencing that participants were understanding the intended *habitual* meaning; **2)** A Context\*Marker interaction one word after the verb for Argentinian ( $p < .001$ ) and Iberian ( $p < .05$ ), due to a significant effect favoring Supporting Contexts only for PROG. No such effect was found in the case of Mexican, but **3)** a marginally significant main effect of Marker was found at the verb, favoring PROG over PRES/ PRET ( $p = .066$ ). (See Figures)

**Discussion.** When contextual information satisfies the presuppositional demands of *estar*, PROG comprehension is facilitated in Argentinian and Iberian. Mexican does not show this facilitating effect, indicating that in that variety PROG is no longer dependent on context support, and might be even preferred over PRES. This pattern is consistent with a *generalization* process already underway in the three varieties, with the Mexican variety appearing further along the grammaticalization path. Crucially, this process of change is observable during real-time language comprehension, and, as we propose, is driven by the contrastive informativity strength of the combined lexico-semantic properties associated with the Present Progressive marker.

## Figures



**Table 1** (stimuli examples, contexts presented only in English for brevity)

Shared Context	Context Type	Sentence with PROG/PRES or Pretérito (PRET) Marker
'Anna and John go to high school together...'	<b>Neutral:</b> Anna is always late because there is a lot of traffic, but <b>John always makes it on time.</b> When Anna asks him how he gets there on time, he tells her:	<b>Estoy viniendo</b> en bicicleta 'I am coming by bike'
	<b>Supporting:</b> Both of them are always late because there is a lot of traffic, <b>but lately John makes it on time.</b> When Anna asks him how he gets there on time, he tells her:'	<b>Vengo</b> en bicicleta 'I come here by bike'  <b>*Vine</b> en bicicleta 'I came here by bike'

## References

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