



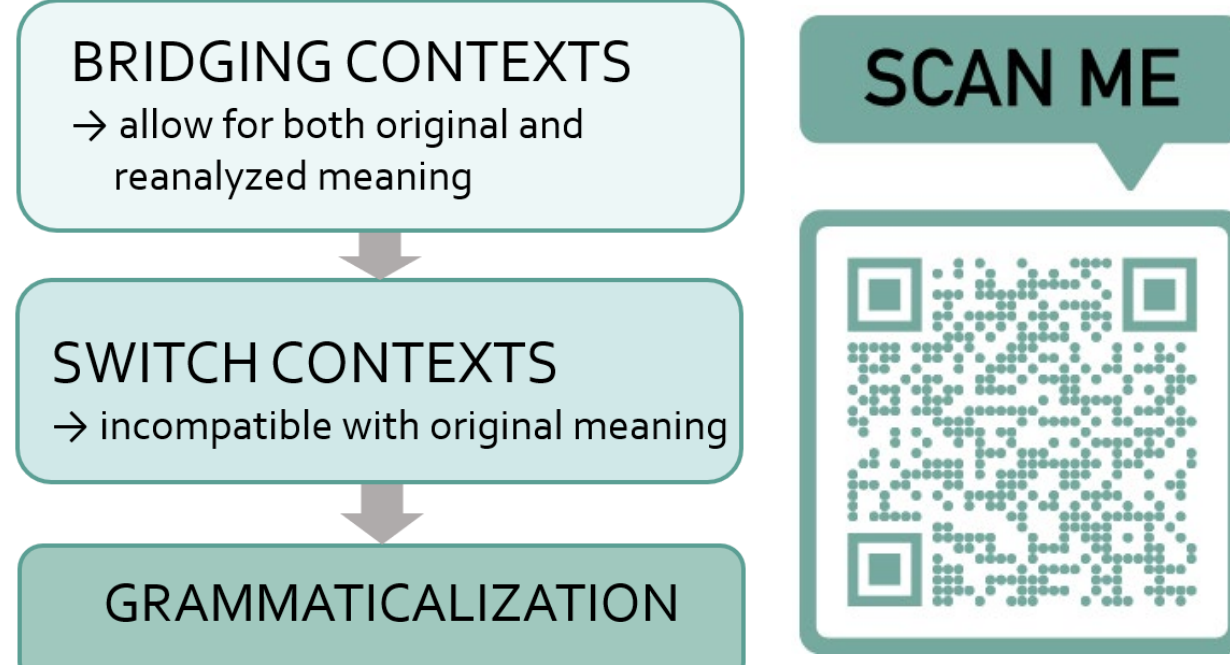
# THE TEST OF TIME: EXPERIMENTALLY RECREATING THE REANALYSIS OF FINISH AS A RECENT PAST MARKER

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## THE EXREAN PROJECT

IN historical linguistics, REANALYSIS is understood as a process by which a new meaning is assigned to a formally unchanged element. EXREAN experimentally tests the hypothesis that reanalysis and actualization processes can be predicted from the exposure to bridging contexts, blocking effects, social factors, cognitive factors, and from individual differences. Thereby, EXREAN allows for a direct falsification of hypotheses about language change.



## ACABAR + INFINITIVE IN OLD SPANISH & SOURCE DETERMINATION

IN Spanish, the construction *acabar de* + infinitive has undergone grammaticalization from a compositional meaning ('finish doing something') in Old Spanish to a non-compositional recent past marker ('have just done something') in contemporary Spanish. In their corpus work, Rosemeyer and Grossman (2017, 2021) identified a possible bridging context that supported this development, characterised by the low informativity of the infinitive (expressed as a gerund in the analogous English construction; e.g., *finish baking the cake* [uninformative] versus *finish drawing the cake* [informative]) and a temporal subordination structure.

Similar grammaticalization processes have been reported for many other, typologically diverse languages (e.g., Tobela or Thai), as would be predicted by Bybee et al.'s (1994) SOURCE DETERMINATION HYPOTHESIS (SDH), suggesting that similar source meanings (including lexical and grammatical material) give rise to similar inferences and thereby determine analogous grammaticalization pathways.

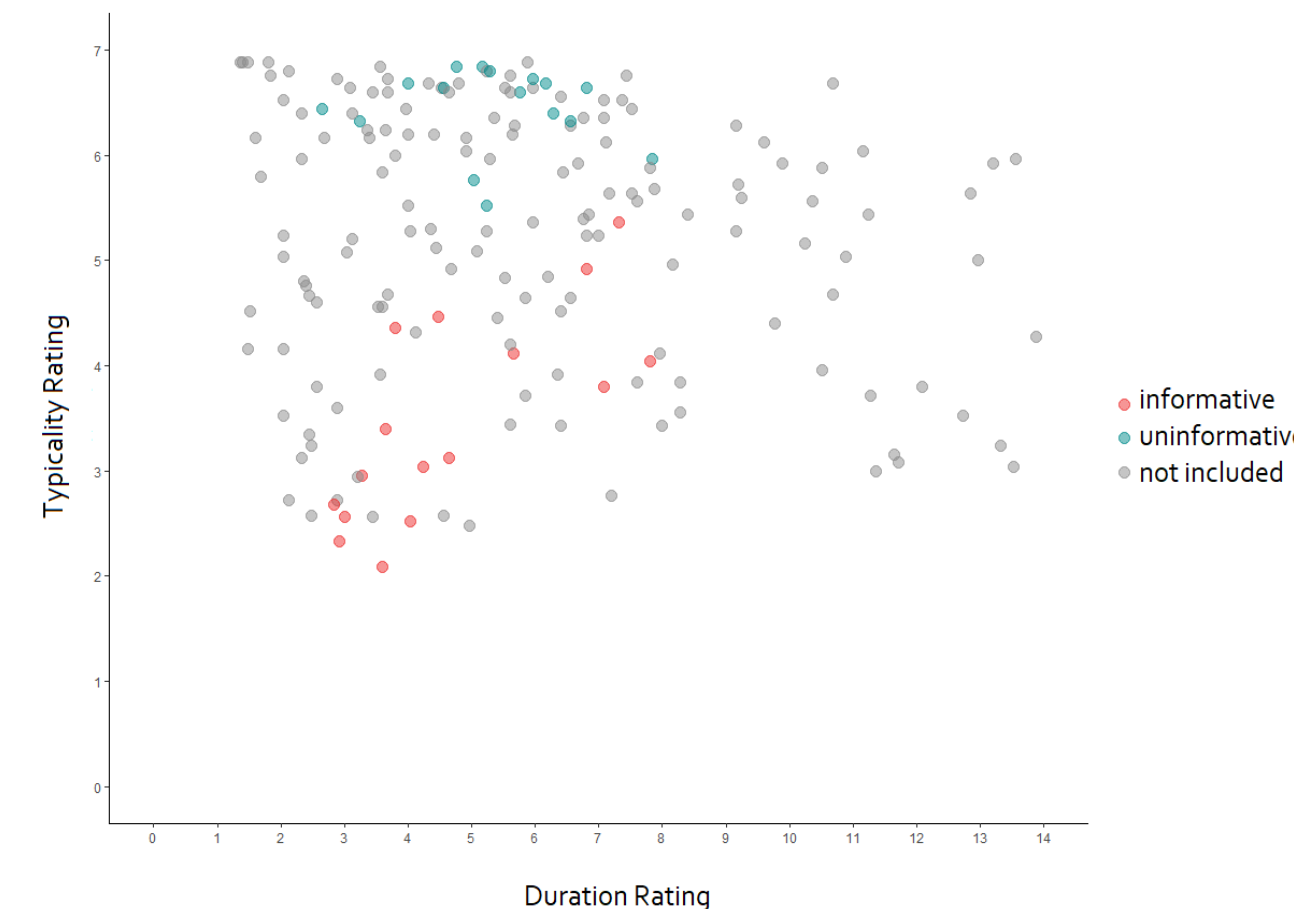
## HYPOTHESES

IF the SDH holds true, the inference of immediacy associated with FINISH in the suggested bridging context (uninformative verb and subordination structure) should also be traceable in a language where this construction has not been grammaticalized (e.g., contemporary English), with other language-internal and language-external factors determining whether the construction undergoes grammaticalization. Grammatical features of the source construction should determine the strength of the inference in addition to lexical meanings.

## PRE-STUDY

→ selection of one informative and one uninformative verb for each of the 16 concrete direct objects in the experimental items of the main study

25 monolingual English speakers (UK) rated 10 pre-selected verbs per object (based on LogDice scores from *Sketch Engine*) according to the typicality of the combination and the duration of the action. The two selected verbs for each object differed concerning their typicality but were matched regarding their duration.

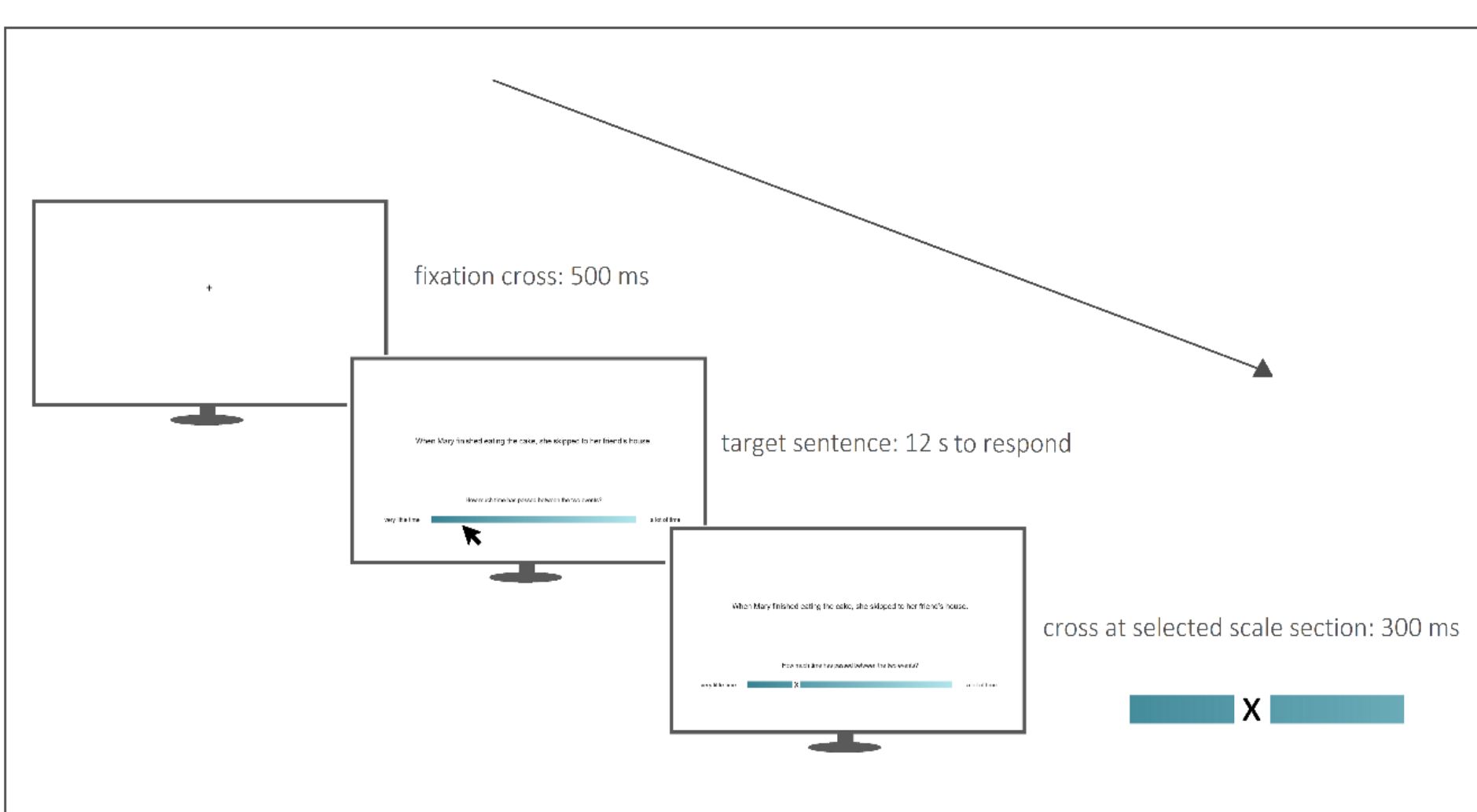


## STIMULI

2 x 2 within-subjects design (high vs. low informativity; subordination vs. main clause structure)  
16 items per participant (items rotated across conditions); Exp. 1: Simple Past / Exp. 2: Past Perfect

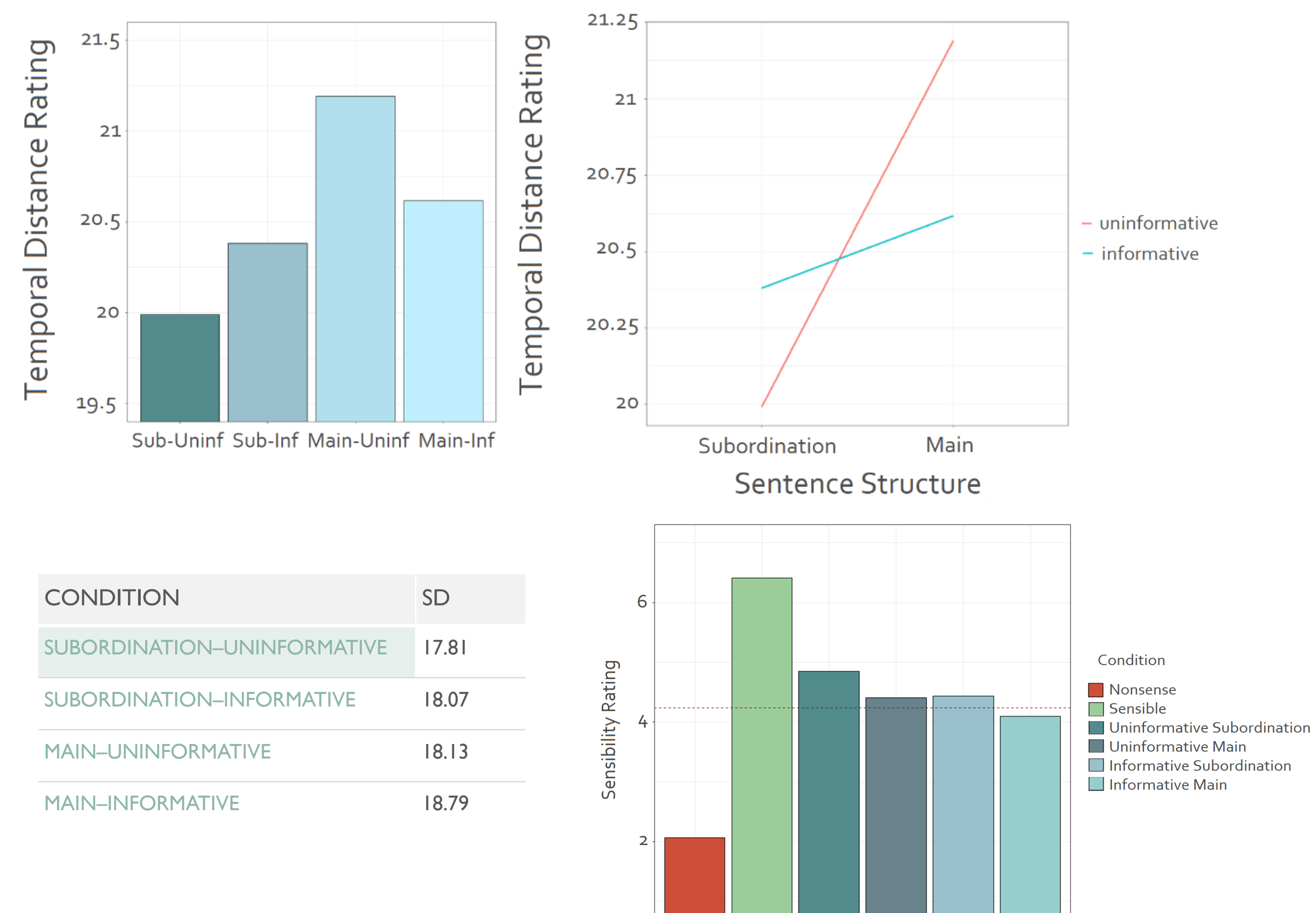
STRUCTURE	INFORMATIVITY	EXAMPLE (ITEM 1)
SUBORDINATION	LOW	When Mary (had) finished <u>eating</u> the cake, she skipped to her friend's house.
SUBORDINATION	HIGH	When Mary (had) finished <u>stealing</u> the cake, she skipped to her friend's house
MAIN CLAUSES	LOW	Mary (had) finished <u>eating</u> the cake. She skipped to her friend's house.
MAIN CLAUSES	HIGH	Mary (had) finished <u>stealing</u> the cake. She skipped to her friend's house.

## PROCEDURE



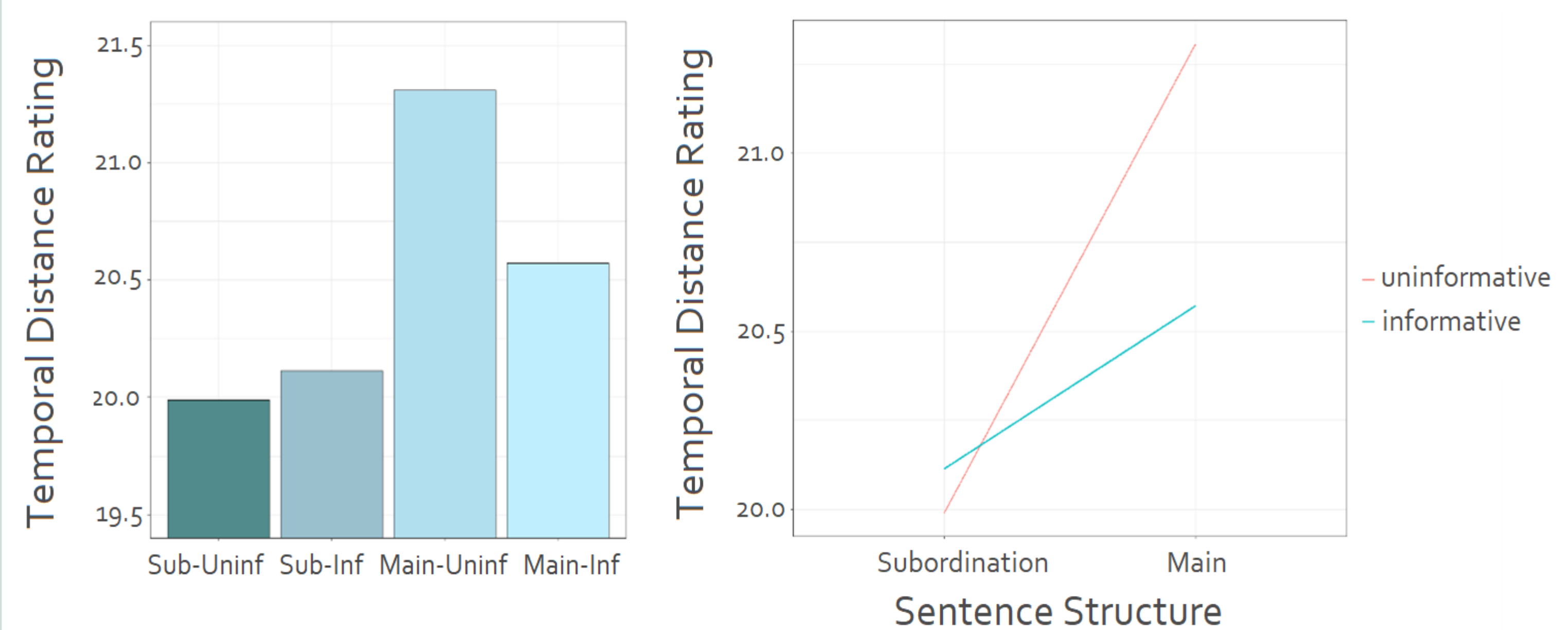
P articipants (English monolinguals, N = 180) were instructed to indicate how much time had passed between two events by clicking on the respective point of a blue scale (ranging from *very little time* to *a lot of time*) according to their first impression. It was made explicit that the smallest temporal distance corresponded to events that immediately followed another event and the largest distance to events that followed another event after three days.

## RESULTS EXPERIMENT 1: SIMPLE PAST



A linear mixed-effects model revealed a significant interaction ( $\beta = -.03$ ,  $p = .013$ ) between the factors *Informativity* and *Sentence Structure*, with the shortest temporal distance ratings observed in the *subordination-uninformative* condition, in line with the suggested bridging context. Descriptively, ratings also appeared to be more systematic in this condition, compared to the other conditions. This interaction was not due to the varying naturalness or sensibility of sentences in the different conditions, as sensibility judgments for the experimental items followed a different, additive pattern.

## RESULTS EXPERIMENT 2: PAST PERFECT



CONDITION	SD
SUBORDINATION-UNINFORMATIVE	17.96
SUBORDINATION-INFORMATIVE	17.61
MAIN-UNINFORMATIVE	18.78
MAIN-INFORMATIVE	18.04

Although a similar descriptive pattern as in Experiment 1 was observed, the interaction between the factors *Informativity* and *Sentence Structure* did not reach significance in Experiment 2 ( $\beta = -.01$ ,  $p = .378$ ). Moreover, items in the condition corresponding to the suggested bridging context (*subordination-uninformative*) were not judged more systematically than items in the other conditions.

## DISCUSSION AND CONCLUSION

IN line with the SOURCE DETERMINATION HYPOTHESIS (SDH), temporal distances in Experiment 1 were rated to be shortest when the informativity of the verb was low and the construction was presented in a subordination context, suggesting that participants of present-day English are sensitive to the hypothesized bridging context and the resulting temporal inference. These findings thereby replicate the pattern observed in corpus data, underlining the cognitive plausibility of the bridging context mechanism. The experimental methods employed in this study, however, allowed for a more direct falsification of hypotheses about the inferential processes that drive grammaticalization.

The prediction of the SDH that grammatical features of the source construction (in addition to lexical meanings) determine the likelihood of reanalysis to occur, was supported by Experiment 2, where no significant effect of the bridging context was observed: The Past Perfect form already overtly specifies the event sequence, presumably making participants pay less attention to contextual information, including the bridging context, to derive a temporal inference.

The findings suggest that the lack of a grammaticalization of the verb 'to finish' into a recent past marker in English was not mainly caused by the absence of suitable source material that can give rise to relevant inferences. Future research should examine additional language-internal and language-external factors that explain why the construction was grammaticalized in some languages but not in others, despite the universal inference that it facilitates.

## References

Bybee, J. L., Perkins, R., & Pagliuca, W. (1994). *The evolution of grammar: Tense, aspect and modality in the languages of the world*. The University of Chicago Press.  
Rosemeyer, M. & Grossman, E. (2017). The road to auxiliariness revisited: the grammaticalization of FINISH anterior in Spanish. *Diachronica*, 34(4), 516–558.  
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PRE-REGISTRATION ON OSF.IO

