

Stress in the Family: Reconsidering Stress Preservation in English -ory Adjectives



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Stress preservation – the problem

Traditional accounts: Stress-preserving affixes preserve the stress from their bases.
Problem: This presupposes a framework which assumes unary base-derivative relations. This view has been challenged by work stressing the importance of paradigm structure or morphological families that go beyond such relations (e.g. Krott et al. 2001, Bonami & Strnadová 2019, Arndt-Lappe & Dabouis 2019) and the gradience of morphological structure (e.g. Hay 2001,2003).
Test case in this paper: Stress in long derivatives ending in *-(at)ory*. There is clear evidence that stress in the verbal base plays a role, but there is also a large amount of unexplained variability in stress assignment (cf. Bauer et al. 2013, Arndt-Lappe & Sanz 2017).

Our questions

Which factors determine stress in *-(at)ory* adjectives?
Do we see effects of paradigm structure in *-(at)ory* adjectives?

Background: Stress and morphological structure in *-(at)ory* adjectives

Stress variability

Preante stress	Antepen stress	Penult stress	Final stress
	óscillat-ory	oscíllat-ory	oscillát-ory
	articulat-ory		articulát-ory
		explánat-ory	explanát-ory
jústificat-ory		justíficat-ory	justificát-ory

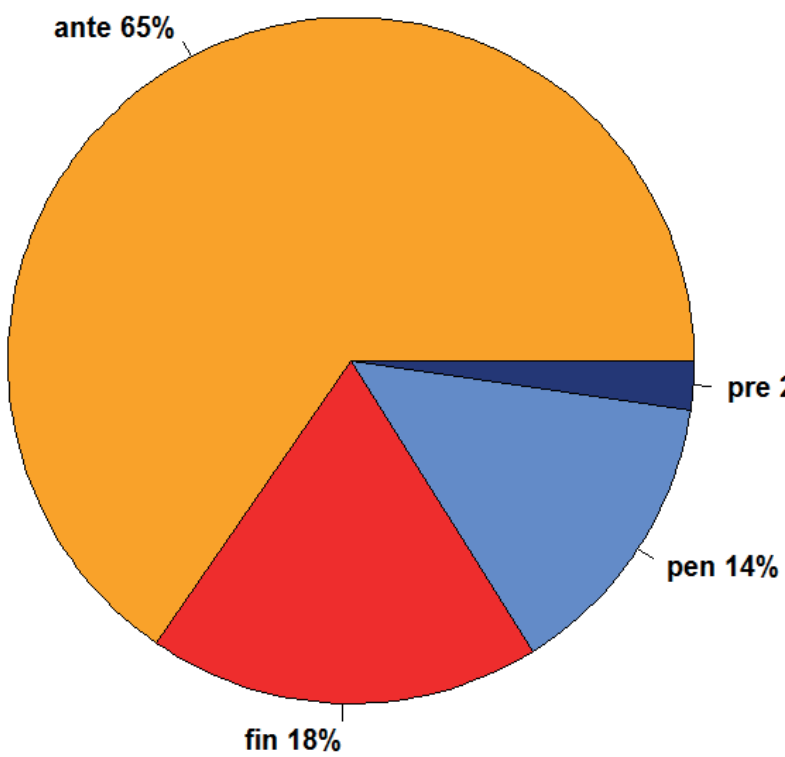
Stress in the family

Derivative	Verbal base	Related noun
oscillat-ory	óscillate, antepen stress	oscillát-ion, pen / 'final' stress
articulat-ory	artícuate, antepen stress	articulát-ion, pen / 'final' stress
explanat-ory	expláin, final / 'pen' stress	explanát-ion, pen / 'final' stress
justificat-ory	jústify, antepen / 'preante' stress	justificát-ion, pen / 'final' stress

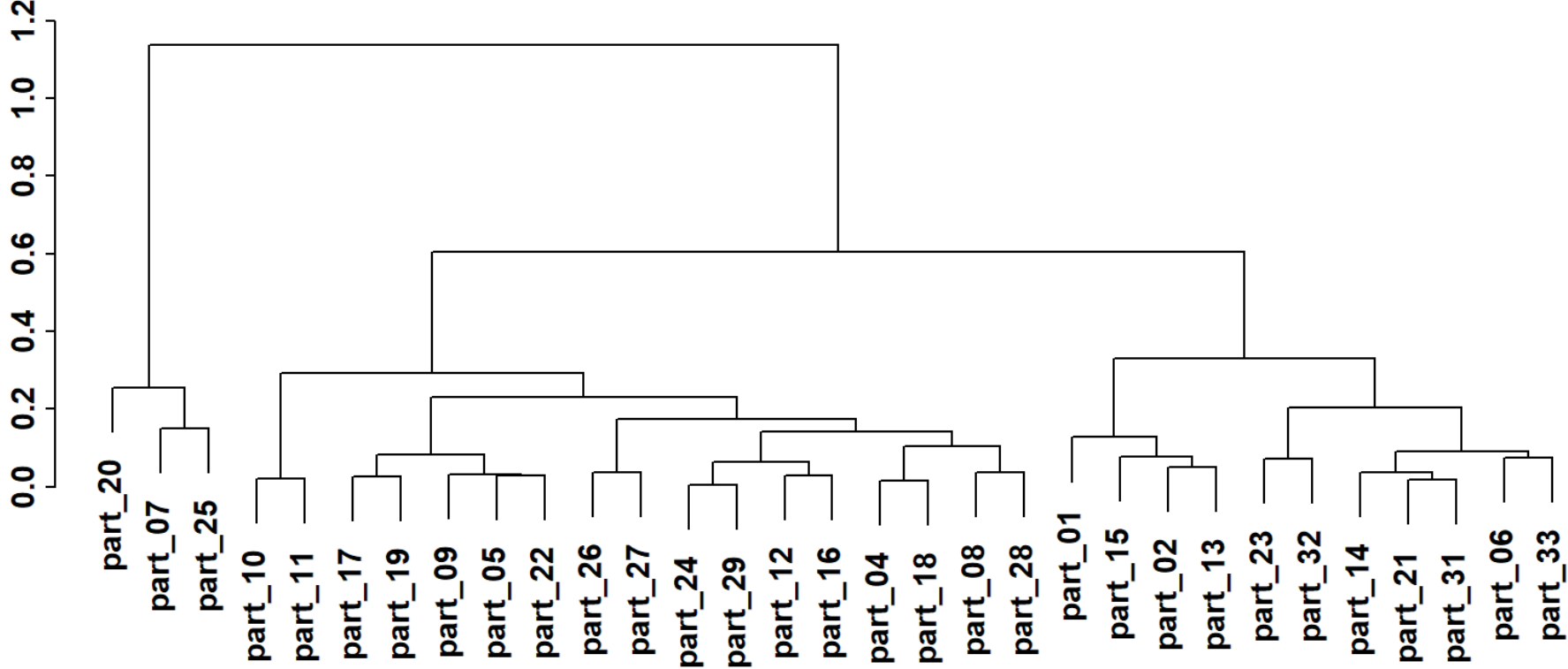
Data - a reading study

Recorded in Manchester in Oct. 2017, by Javier Sanz
31 native speakers of British English
32 *-(at)ory* derivatives with at least two syllables preceding *-atory*, with different frequency constellations, embedded in naturalistic test sentences, ~ 200 filler items
N = 1.289 tokens
Examples
However, it would be better for him not to miss this important weekly congregatory prayer.
Demonstrate your sportsmanship by posting appreciatory comments on other people's walls.

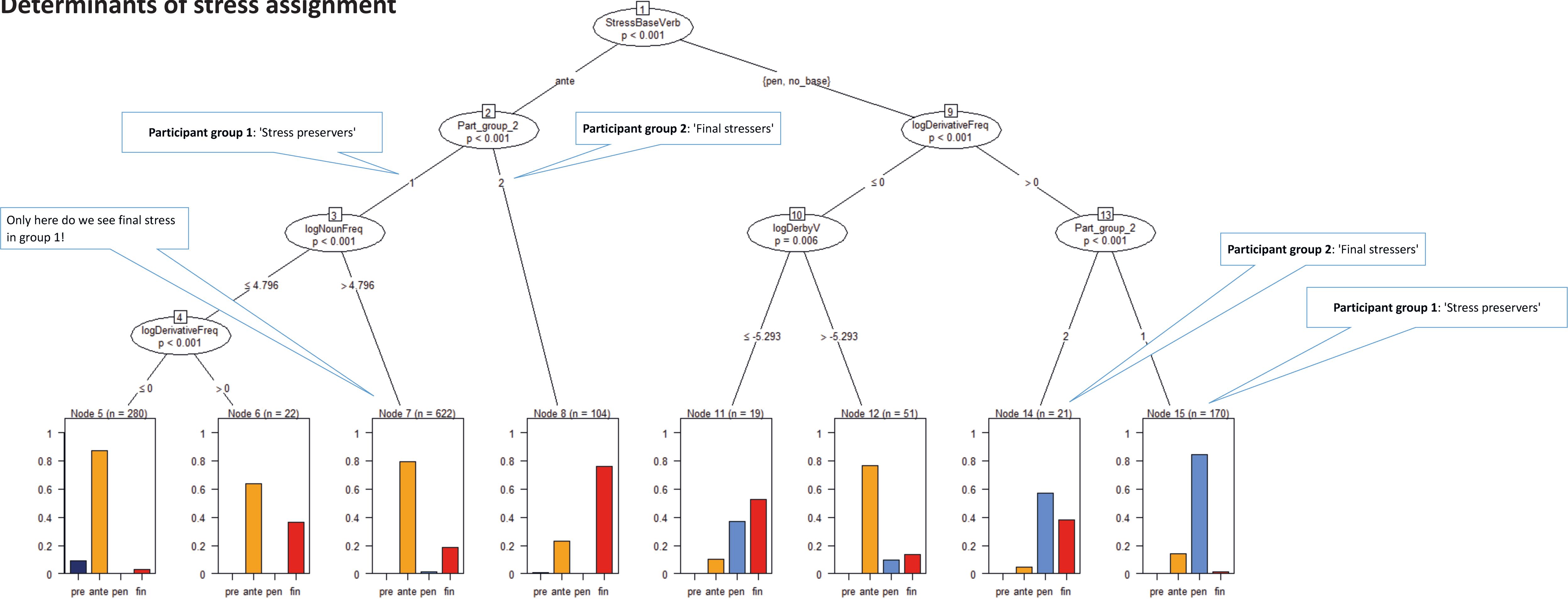
General distribution of stresses



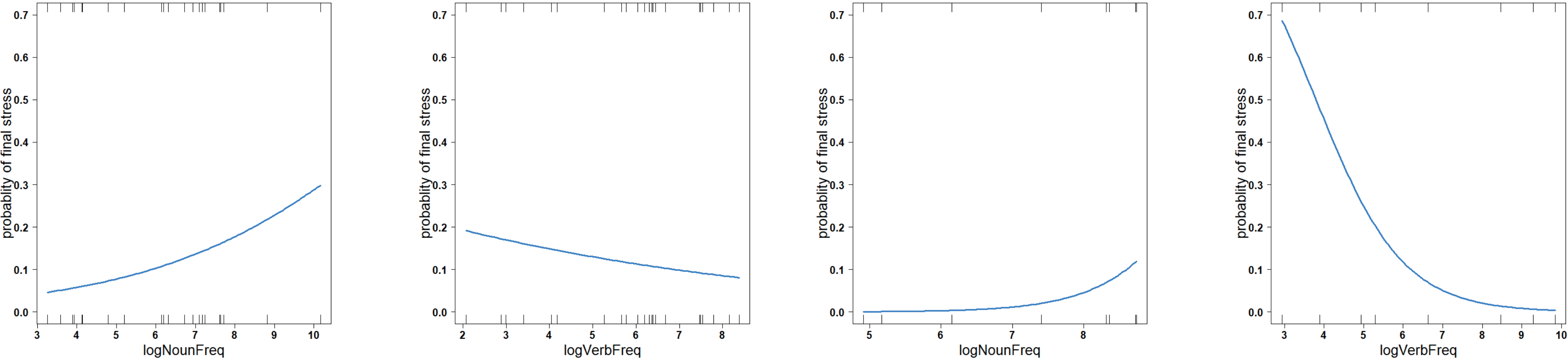
Groups of participants



Determinants of stress assignment



Closeup on frequency effects



Model 1: bases with antepenultimate stress (N = 988)

Model 2: bases with penultimate stress (N = 164)

Conclusions

-(at)ory is largely stress-preserving.
The observed frequency effects demonstrate that 'stress preservation' is faithfulness to stress in related forms, not to stress in a single base.
The empirical facts can be accounted for only in a theory that incorporates influence from paradigmatically related forms on stress assignment.

Method: Linear Mixed Effects Regression
(Bates et al. 2015)
dependent variable:
probability of final stress
predictor variables:
log noun frequency,
log verb frequency
random factor: participant

References: Arndt-Lappe, S. & J. Sanz. 2019. Stress variability in long-able and -ory adjectives in spoken British English. submitted. Arndt-Lappe, S. & Q. Dabouis. 2018. Secondary Stress and Morphological Structure. Paper presented at the 18th International Morphology Meeting, Budapest. Bates, D., M. Mächler, B. Bolker & S. Walker. 2015. Fitting Linear Mixed-Effects Models Using lme4. *Journal of Statistical Software* 67(1). Bauer, L., R. Lieber & I. Plag. 2013. *The Oxford Reference Guide to English Morphology*. Oxford: OUP. Bonami, O. & J. Strnadová. 2018. Paradigm structure and predictability in derivational morphology. *Morphology* 29(2), 167–197. Hay, J. 2001. Lexical frequency in morphology: Is everything relative? *Linguistics* 39(6), 1041–1070. Hay, J. 2003. *Causes and Consequences of Word Structure*. London: Routledge. Krott, A., H. R. Baayen & R. Schreuder. 2001. Analogy in morphology: Modeling the choice of linking morphemes in Dutch. *Linguistics* 39, 51–93.

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