

The *most apt* experimental investigation of English comparative and superlative formation

Keywords: morphophonology, adjective gradation, variation

Nathan LaFave
New York University

Adjective gradation (AG), the creation of morphological or periphrastic forms of comparatives and superlative adjectives, has garnered much attention from generativist and, later, corpus linguistics scholars as a site of morphophonological and syntactic variation—one which can also inform theories of controversial phenomena such as blocking (see Poser 1992, Embick & Marantz 2008, Adams 2011). The early literature points to root syllabicity as overwhelmingly determining the type of AG in English (Quirk et al. 1985): monosyllables result in the synthetic (morphological) form which involves adding *-er/-est* to the root adjective (e.g., *smarter*), while roots with two or more syllables take analytic (periphrastic) form with *more /most* preceding the root (*most honest*). Disyllabic roots were thought to be the most likely sites of variation, with monosyllables and roots with three or more syllables considered (almost) categorical. Corpus linguistics research unveiled a number of other factors that contributed significantly to variation, among them the frequency of the root (Hilpert 2008), as well as phonological properties of the final segment such as whether the root ends in a consonant cluster, /r/, or /l/, and if a disyllable ends in *-y* or *-ly* (ibid). Furthermore, recent experimental work introduced the Latinate or nonLatinate (Germanic) origin of the root as a significant predictor for AG and also determined that native English speakers judged analytic and synthetic monosyllables very similarly, suggesting greater variation among these forms than previously assumed (LaFave 2012). Despite the range of research on this phenomenon, one area that has been consistently overlooked is how these factors and others contribute to superlative formation.

This research makes use of a rating study of both comparatives and superlatives to quantify impressionistic data on a subset of the factors mentioned above that influence English AG: *cons_vow* (contrasting consonant-final adjectives and vowel-final adjectives: *true, brash*), *degree* of AG (comparative, superlative), *logfreq* (a log-transformation of the root's raw frequency in the Corpus of Contemporary American English (Davies 2008-)), and the adjective's *sourcelanguage* (Latinate, nonLatinate). Syllabicity is constant for this study, which only included monosyllabic adjective roots. Native English speakers (n=100) rated the naturalness of 36 graded adjective forms—selected randomly from a total of 25 monosyllabic roots (50 forms)—in orthographically presented determiner phrases (*the vaster sea, the vastest plain, the most blank stare*) using a scale of one ("very bad") to seven ("excellent").

A mixed-effects regression model (n=2999), with normalized *rating* as a dependent variable, was fitted in R (R Development Core Team 2011). Crucially, the two significant interactions influencing the evaluation of AG were *form:logfreq* (Est = .16, SE = .04, $t = 4.26$, $p < .001$) and *form:sourcelanguage* (Est = 0.42, SE = .15, $t = 2.79$, $p < .01$). Latinate monosyllables were rated fairly similarly regardless of form (mean: 4.5, SE: .08 for synthetic; mean: 4.9, SE: .08 for analytic), but raters strongly favored nonLatinate synthetic AG (mean: 5.36, SE: .06) over the analytic form (mean: 3.62, SE: .06) (Figure 1). These findings contrast with those of LaFave (2012), who found little difference among nonLatinate (Germanic) forms, suggesting the earlier results may have been influenced by including disyllabic roots with the monosyllables in that study. The preference for synthetic nonLatinate AG in the present research more closely mirrors the linguistic reality that Germanic languages employ synthetic AG. Also differing with earlier experimental work is the fact that there was a significant interaction between *form* and *logfreq* among these data (Figure 2). A possible explanation is that any effect of frequency in the earlier research was masked by the much stronger effect of syllabicity, which was held constant in the present study. Here, the higher frequency roots show a greater polarity between rating of analytic and synthetic forms, with synthetic forms of high frequency roots strongly preferred. This pattern among frequent roots seems to coincide with Poser's (1992) account of blocking (the favorable synthetic form prevents the occurrence of an analytic alternative), but crucially the low frequency roots show comparable form ratings, contra this account of blocking. A more detailed, statistical analysis of any blocking effects will be presented.

This study marks the first empirical investigation of English superlatives, and confirms their (perhaps unsurprising) comparability to comparatives. It further develops the effect of a root's source language on the form of its gradation, which in turn beckons a parallel study of ratings of English AG by bilingual speakers of English and either a Latinate or Germanic language. Finally, this work is situated to

The *more apt* comparative form: An experimental approach to English adjective gradation

contribute substantial experimental evidence that will be brought to bear on the classic morphosyntactic phenomenon of blocking. Additional directions for research include investigation of nonce word ratings for the factors discussed here, as well as a study of AG in languages other than English.

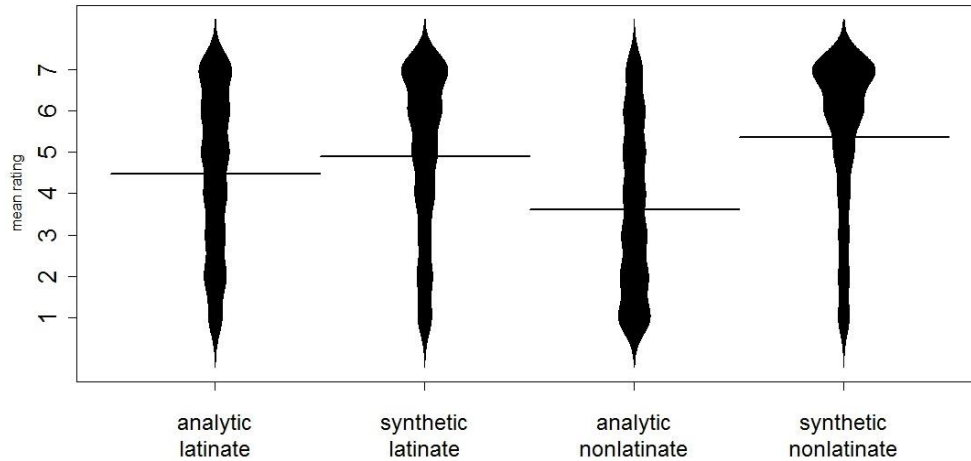


Figure 1: Density plots for rating of graded adjectives by form and source language

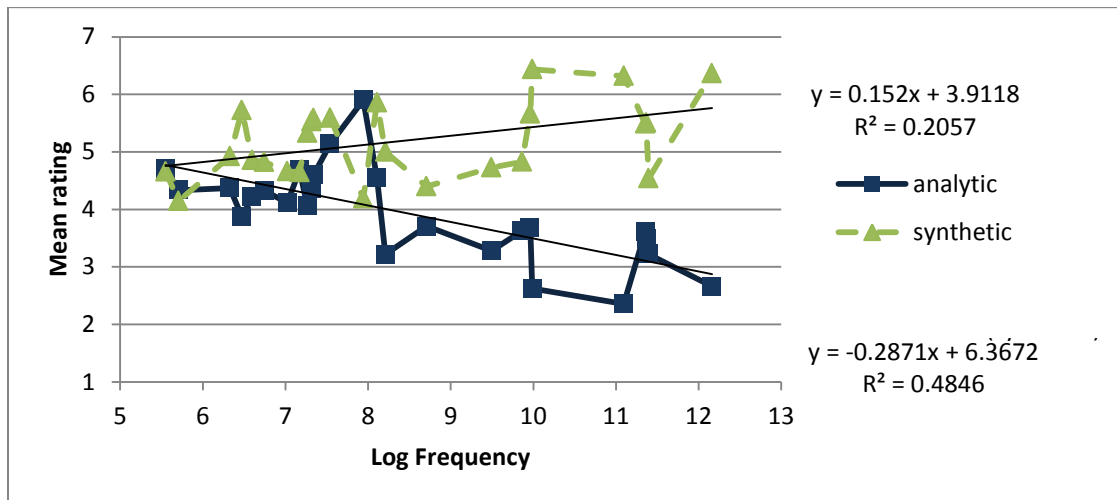


Figure 2: Density plots for rating of graded adjectives in post-hoc dataset by form and final segment

References

- Adams, M. 2011. Linguistically Conditioned Gradient Blocking in the English Comparative. Paper at CrISP 2011, Stanford University/University of California, Santa Cruz.
- Davies, M. 2008-. The Corpus of Contemporary American English: 425 million words, 1990-present. Available online at <http://corpus.byu.edu/coca/>.
- Embick, D. & A. Marantz. 2008. "Architecture and Blocking," *Linguistic Inquiry* 39:1, 1–53.
- Hilpert, M. 2008. The English comparative – language structure and language use. *English Language and Linguistics*, 12 (3): 395-417.
- LaFave, N. 2012. A *more*-phonological investigation of English adjective gradation. Paper at SYNC 2012, CUNY Graduate Center, New York, NY.
- Poser, WJ. 1992. Blocking of phrasal constructions by lexical items. In *Lexical matters*, ed. by I. Sag and A. Szabolcsi, 111-130. Stanford, CA: CSLI Publications.
- Quirk, R., Greenbaum, S., Leech, G. & J. Svartvik. 1985. A comprehensive grammar of the English language. New York: Longman.
- R Development Core Team. 2011. R: A language and environment for statistical computing. Vienna, Austria. <http://www.R-project.org>.