Unexpected stresses in English derivation: exceptionally variable or variably exceptional? a case study of adjectives in -able and -ory

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It is a standard assumption in many grammatical theories that exceptional forms are an effect of the forms' exceptional properties being stored in the lexicon, whereas non-exceptional forms are interpreted as the result of rule- (or constraint-) governed, predictable behaviour. A matter of debate that divides current theories is how to interpret cases where grammatical rule application is variable and, at the same time, systematically constrained by lexical factors. The present paper seeks to contribute to this debate focussing on variability in stress assignment in derived words in English, specifically in derived adjectives ending in -able and -ory. The contribution will be both empirical and theoretical.

In descriptions of English morphophonology, traditionally a distinction is made between stress-shifting and stress-preserving affixes. In generative approaches, this distinction has figured prominently in the theoretical literature, providing the basis for far-reaching claims about the nature of phonology-morphology interaction (most notably in Lexical Phonology: cf. Kiparsky 1982 et seq., Giegerich 1999; cf. also e.g. Pater 2000, Zamma 2012, Bermúdez-Otero 2012, Stanton & Steriade 2014).

One aspect that has important theoretical implications but is still not well understood is the question of variability in stress assignment. Thus, many traditional generative approaches rest on the assumption that application of morpho-phonological stress rules is categorical (and, hence, non-variable). Variability, then, can only be a result of lexical marking and, hence, idiosyncratic behaviour (cf. e.g. Pater 2000), or alternatively, in dual-mechanism models, a result of a mechanism that is fundamentally non-grammatical (but 'associative', cf. e.g. Bermúdez-Otero 2012). Traditionally, stress in derived words in English has not been in the focus of much work devoted to variability. However, recent research has brought to light an increasing amount of evidence that strongly suggests that variability has been underestimated (cf. esp. Zamma 2012, Bauer et al. 2013: chpt. 9). Evidence is, however, so far largely anecdotal and unsystematic, and the theoretical status of the findings is unclear. The goal of the present paper is to provide a systematic empirical analysis of the stress behaviour of two derivational categories, -able and -ory, and to discuss pertinent theoretical claims in the light of the empirical facts.

-able is in general considered to be a stress-preserving suffix, but various cases of unfaithful stress assignment have been observed in the literature (Aronoff 1976, Giegerich 1999, Trevian 2007, Bauer et al. 2013: 186f., 297). These have been variably attributed to -able's status as two different suffixes (Aronoff 1976: 122f.), its dual class membership (e.g. Giegerich 1999), semantic opacity (Burzio 2002), structural factors (Bauer et al. 2013: 186f., 297), or paradigmatic effects triggered by related bases (Stanton & Steriade 2014). Examples of forms discussed in the literature are given in (1).

(1) a. stress preservation with -able: abrígeable, álterable, anállysable, mónitorable
   b. stress shift with -able: anállysable, allocátable, documentable

Another suffix that is known to exhibit stress variation is the adjectival suffix -ory. -ory is usually claimed to be stress-shifting (Liberman & Prince 1977, Zamma 2012). Variation has traditionally been described in terms of two conflicting stress rules that are both operative in -ory derivatives: weak retraction and long retraction (Liberman & Prince 1977, Hayes 1982). Contrary to traditional stress-shifting accounts, Bauer et al. note that "the stress pattern of the base is almost always retained with -ory" (Bauer et al. 2013: 301). Examples are provided in (2), taken from Bauer et al. 2013: 185, 301.

(2) a. base-final stress with -ory: advisory, conclúsory
   b. penultimate stress with -ory: migratory, contributory
   c. antepenultimate stress with -ory: artículatory, anticipatory

The data for the present analysis come from a corpus of some 250 derivatives taken from the CELEX lexical database (Baayen et al. 1995) and from the Oxford English Dictionary. Unlike in previous studies, the corpus comprises only derivatives with long bases (> 2 syllables).

The study finds a substantial amount of stress variation both across and within lexical types. Moreover, quantitative analysis of the data suggests that the variation is systematic, reflecting the presence and interaction of stress preservation effects and effects of phonological wellformedness (esp. of syllable quantity) in both -able and -ory derivatives. The two morphological categories differ only in terms of the relative strength of the two effects. Neither of the two effects is categorical in the sense that it
is exceptionless. Furthermore, phonological wellformedness is shown to be constrained by stress preservation. In particular, unfaithful stresses are more likely to occur if the unfaithful stress preserves the rhythmic structure of the base in the derivative.

In terms of their theoretical implications, the findings provide a challenge to several theoretical approaches that have been proposed to explain unexpected stresses in English derivation. For example, cases of stress preservation in stress-shifting processes and cases of stress shift in stress-preserving suffixation challenge the idea advanced in many stratum-based theories that phonological rule application is categorical. Likewise, the findings challenge approaches that emphasise the role of correspondence relations as sources of exceptional stresses because stress shift in stress-preserving suffixation also occurs independently of the presence of pertinent correspondence relations.

References
Stanton, Juliet & Donca Steriade. 2014. Stress windows and Base Faithfulness in English suffixal derivatives (22. Manchester Phonology Meeting (mfm)). Manchester.