

# English Stress: Re-inventing the Paradigm

by *René Kager*

Review of: **Principles of English Stress**

by *Luigi Burzio*

It is useful to start a review<sup>1</sup> of a book on English stress and length by pointing out two facts. First, an extensive literature on the topic exists. Even within generative phonology, several monographs have been devoted to it, of which Chomsky & Halle (1968) was the first. Second, stress and length are immensely complex, due to lexical idiosyncrasies as well as interactions with the morphology. Since it seems generally impossible to predict the patterns of individual words, the genuine criterion for any treatment of English stress and length should be whether it throws a *new light* (since so much has been said already) on the interaction of factors defining the ‘*space*’ of *lexical variability*. In this respect, *Principles of English Stress* passes the test. Its contribution is that stress is not assigned by rule in a ‘cyclic’ derivation, but is due to the interaction between ranked and violable constraints on foot well-formedness, stress preservation, affix alignment, etc. It argues that effects of ‘stress preservation’ in morphologically related words (e.g., *manípulàte* - *manìpulátion*) are due to *maximal metrical identity* within the paradigm, rather than to derivational means, e.g., cyclic stress rules. Derivational cyclic theory captured paradigm uniformity effects as well, but only indirectly, without any *direct* comparison between morphologically related forms. In a broader way, Burzio argues that all lexical variation in English stress and length is due to specific resolutions of conflicts between constraints, the most important of which are stress preservation, exhaustivity of metrical parsing, quantity-sensitivity, affix alignment, and extrametricality. Even before it came out the book has proven its influence on Optimality Theory, and specifically on its latest version, ‘correspondence theory’, itself an unpublished manuscript by McCarthy & Prince (1994). Rather strikingly, it seems that we are witnessing a revival of the traditional notion of *paradigm uniformity* that had been long abandoned in generative phonology. Of course the crucial question is: does the revived ‘paradigm uniformity’ theory avoid the problems for which the older theory was abandoned?

Before I address this question, let me state two reservations about this book. The first is that Burzio simply ignores important earlier work that is similar to his in spirit, in analysis, or both. First, on the theoretical side, Burzio proposes a theory with ranked and violable constraints (and *tableaux!*), yet refers to Prince & Smolensky (1993) only once in the introduction. Second, with respect to earlier work on English stress, a monograph of this size, resulting from a decade of work, should not have completely ignored insights of authors such as Selkirk (1980), Hammond (1984), Prince (1985), Kager (1989), and Hayes (1991), which are highly similar to Burzio’s. The author shows some awareness of this in his preface, speaking of his ‘unforgivable ignorance of much important work in phonology’. The book’s second liability is that its composition

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reflects its ‘long gestation period’ (p.xiii), which can be partially traced back in Burzio (1987, 1990). In particular, it switches back-and-forth between two extreme analytic positions on vowel length.

Let us now consider the nature of Burzio’s contribution in more detail, linking it up with previous insights into English stress. He observes that the foot types in complex words are precisely those found in simplex words. Thus stress preservation never results in ill-formed feet. Actually, it was Selkirk (1980) who first discovered that the transferral of metrical structure from stems to derived words may be blocked by general conditions on *foot well-formedness*. The ‘disappearance’ of the stress of *Japán* in its related form *Jàpanése* follows from the general ban on monomoraic feet in English. Kiparsky (1982) modelled stress preservation as a *direct comparison* between metrical structures of stems (‘identity rules’) and derived words. Kager (1989) synthesized Selkirk’s and Kiparsky’s ideas in a non-derivational analysis. Although Burzio seems unaware of its predecessors, he takes the next logical step in this program, which is to state the predominance of foot well-formedness over stress preservation as an *interaction between ranked and violable constraints*. Stress preservation now becomes a soft constraint that directly compares the metrical structure of a derived form to that of its stem, penalizing any divergences. Even though stress preservation would prefer a derived form *Ja(pà)(nése)*, with a foot on the second syllable, as in the stem *Ja(pán)*, higher-ranked foot well-formedness excludes this candidate, and leaves only a single way to metrify the complex word, i.e. (*Jàpa*)(*nése*). It is only when foot well-formedness leaves *indeterminacy* of metrical parsing, that stress preservation comes into play, selecting metrifications in which stem stress is preserved. For example, both *ma(nìpu)(látion)* and (*mànipu*)(*látion*) are well-formed foot parsings, but only the former parsing preserves the stress in the stem, cf. *ma(nípu)(làte)*. Encoding foot well-formedness directly, this theory dispenses with re-adjustment rules such as foot relabelling, destressing, stray syllable adjunction, etc. This is an important step forward.

Two crucial questions that should be answered under a nonderivational approach of stress preservation are the following. Firstly, can the notion of ‘metrical identity’ that is crucial in stress preservation be made sufficiently explicit to be part of a formal theory? How does one establish the degree of metrical similarity between two forms? A priori, a number of possibilities arise, e.g. shared foot structure, shared strong or weak positions, etc. Furthermore, is metrical similarity measured in an all-or-none fashion or in a gradient fashion? Although Burzio never formalizes the notion of metrical similarity, it is clear from his discussion that he intends identity *of strong positions*, measured in an *all-or-none* fashion. (This is parallel to the ‘stress copy’ device of Halle & Vergnaud 1987.) However, there is some evidence for correspondence of weak positions as well. Consider the pair (*hóspita*)(*lize*) - (*hòspita*)(*lizátion*), and specifically the fact that both lack stress on their third syllables. The longer form could have been exhaustively parsed by binary feet, as in \*(*hòspi*)(*tàli*)(*zátion*). Tentatively, we could attribute the lack of stress to the paradigmatic correspondence of unstressed positions, or perhaps of foot boundaries.

The second question involves the scope of ‘stress preservation’ within a set of morphologically related forms. Can the metrical shape of any member of a paradigm in principle be relevant to the metrical shape of any other member of the same paradigm? Notice that derivational theory had a *cycle* to guarantee that the phonological shape of a complex word can only depend on that of its embedded morphemes. There is no clear counterpart to this restriction under a non-derivational theory, which is inherently neutral with respect to the directionality of morphological relationships. When

correspondence relationships can be freely set up between all forms in a paradigm, this would make the incorrect prediction that stems could ‘preserve’ stress from derived forms, and also that a derived form could preserve stress of any deeply embedded constituent. As an example, consider the mini-paradigm (*órigín*), *o(ríginál)*, *o(rìgi)(nállity)*. Why would the stem not ‘preserve’ the stress of the more complex forms, \**o(rígin)* ‘looking ahead’ to *o(ríginál)*? And why would *o(rìgi)(nállity)* not preserve the stress of its stem (*órigín*) rather than that of its immediate base *o(ríginál)*, as in \**(òrigi)(nállity)*?

Consider the definition of ‘stress preservation’ that Burzio gives (on p.166) as ‘a principle that imposes consistent metrical characteristics on morphemes, and in particular preservation of stem stress under affixation’. On p. 189, stress preservation is formulated as a condition  $W_1 \rightarrow [_{W_2} W_1 + \text{affix}]$ . Here Burzio uses the notion of ‘stem’ in its sense of ‘base of affixation’. This guarantees that the metrification of complex words depends on their immediate morphological sub-constituents. Ideally, this interaction would have to be derived from independent properties of word formation, as it is in Lexical Phonology. (Kiparsky 1982; see Orgun 1995 for a different theory which meets this criterion.) But on p. 312, the previous diagram is replaced by one in which the arrows between  $W_1$  and  $W_2$  have become bidirectional, and in which  $W_1$ ,  $W_2$  have become morphemes rather than stems and affixed words. Generalization to morphemes serves to include affix-dependent stressings into the general scheme of ‘metrical consistency of morphemes’. With Selkirk (1980), Burzio assumes that suffixes have lexical representations which mark off their position in a foot, e.g. *-a)l* in *o.(rí.gi.n-a)l*, and *-ic)Ø* in *spe.(cí.fì.c)Ø*. (I will return to ternary feet and phonetically null vowels below.) The change to bidirectional consistency is puzzling, however, since this annihilates the result that metrical consistency of words is always dependent on their immediate morphological sub-constituents.

The strongest argument that the stress pattern of morphologically complex words is systematically related to that of embedded parts is this. For stems that display variation in stressing, a corresponding stress variation is found in the complex word. Thus we find either *dèmonstrábility* or *demònstrábility* (*démonstrable*, *demónstrable*); *hòspitalizátion* or *hospítalizátion* (*hóspitalize*, *hospítalize*); and *àmortizátion* or *amòrtizátion* (*ámortize*, *amórtize*). In contrast there is only *stàndardizátion* (\**stándardizátion*) and *fràternizátion* (\**fratèrnizátion*) because of a lack of variation in *stándardize*, *fráternize* (\**stándárdize*, *fratèrnize*). It is interesting to observe that the ‘immediate sub-constituent principle’ does not always predict transfer of stress variability to the derived word. For example, Kenyon & Knott (1953) note stress variation in, e.g., *imprègnábility*, *ìmpregnábility*, arguably corresponding to the stress variation *imprègnàte* and *ìmpregnàte* (the former is favored in American English, the latter in British English). But notice that there is no variation in the immediate base of the word, which is *imprègnable* (\**ìmpregnable*). Setting up stress correspondence between *ìmpregnàte* and *ìmpregnábility* would not be allowed under Burzio’s hypothesis, as *imprègnable* is the immediate sub-constituent. Similarly, the first of illustrious dual forms *acàdemícian* (cf. *acádemy*) and *àcademícian* (cf. *àcadémic*) is not predicted, as *academic* is (hopefully) closer related to *academician* than *academy* is.

On the other hand, Burzio makes use of the possibilities that his non-derivational theory offers, in particular when he extends ‘paradigm uniformity’ to cases that involve no clear morphological derivedness. For example, on p. 211 he relates the stress pattern of *metamórphize* to that of its ‘stem’ *metamórphosis*, even though these are strictly speaking not related through a simple morpheme concatenation. (Under a derivational

theory this would involve a rule of truncation of *-osis* before *-ize*.) In the next footnote, he relates *gélignì:te* to *gél*. This raises the question how far can we stretch the notion of morphological relatedness.

A theorist like Burzio, who takes the viewpoint that stress in morphologically complex words maximally preserves the metrification of the constituting morphemes, is in an excellent position to point out that idiosyncrasies in the stem are transferred to its related forms. That is, even though we cannot predict final stress in *Tibét*, we find that a form such as *Tibétan* preserves this stress. As far as I understand, Burzio indeed takes a 'lexical stress' viewpoint (see section 6.4). Therefore it is strange that he simultaneously seems to stick to the SPE viewpoint that English stress is 'fully predictable', using a set of abstract segmental lexical markings to make this come true. These are null elements (often orthographically represented), such as phonetically null vowels (*ellipse*), abstract geminates (*vanílla*), or both (*Tibét*, *giráffe*). The alternative to segmental specification is specification of stress in lexical representations using a restricted set of foot templates, as has been advocated by Selkirk (1980). Selkirk explicitly argues that foot well-formedness functions as an output filter on stress preservation - essentially Burzio's main conclusion, but strangely left unacknowledged by the latter. For Selkirk stress-preserving outputs are barred that violate foot well-formedness, see the above discussion of *Jàpanése*. Crucially Selkirk's analysis assumes that (L) is ill-formed while (H) is well-formed, cf. *Ja.(pán)*. In contrast Burzio's analysis does not allow for monosyllabic feet, which brings us to the foot inventory.

Burzio's inventory of feet contains binary (H  $\sigma$ ), as in *a(génda)* and *re(cóndite)*, or ternary ( $\sigma$  L  $\sigma$ ), as in *A(mérica)* and *(ásteris)kØ*, and marginally binary (L  $\sigma$ ), as in *(próduc)tØ* and *ac(céle)(ràte)*. This excludes the unary foot (H), and it sharply delimits the role of ( $\sigma$  L), both members of the binary inventory of Hayes (1981). Since ternarity is basic for Burzio, the role of extrametricality in English becomes marginal, and there is none in, e.g., *A.(mé.ri.ca)* and *a.(gén.da)*. Phonetically null vowels occur after word-final consonants, metrifiable as full syllables, e.g. *de.(vé.lo.pØ)*, *pre.(vén.tØ)*. Burzio makes the claim that English feet are minimally disyllabic (as Giegerich 1985 and Kager 1989 argued before him, for different reasons). His strongest argument, in my opinion, is the fact that (H) is avoided in non-final positions, and especially in contexts of (potential) stress preservation, e.g. *infórm - in(fórm)ation*, and *univérsal - univérsality*. In contrast, stress preservation of disyllabic feet, e.g. *consíder - considér(ation)*, *oríginal - oríginality*, is a fully regular phenomenon. If (H) feet are excluded, then non-reduction in cases such as *condéense - còndens(ation)*, which SPE attributed to 'stress preservation', must be due to preservation of segmental quality, respected by vowel reduction. (Earlier Hammond 1984 and Halle & Vergnaud 1987 came to similar conclusions.) In section 2.5, Burzio even suggests that foot disyllabicity is universal. However, much research on stress and prosodic morphology of the last decade shows that the monosyllabic heavy foot (H) does occur in many languages, often co-patterning with the double light foot (LL), either in stress, in word minima, or in reduplication templates.

One of Burzio's arguments against syllable extrametricality in English (p. 147) is that if it were generally the case then words like *(pró)<duct>* would require a degenerate foot, which we know is impossible because of the ill-formedness of *\*(bà)(nána)*. Hence *product* should be analysed by a (LH) foot, opening up the possibility of *\*(ágen)<da>* by extrametricality. Burzio concludes that extrametricality cannot be maintained, and feet are basically ternary. (To account for words such as *product*, Burzio is forced to include a stipulation allowing final (LH) feet in disyllables, but excluding this foot word-initially, cf. p. 144.) Actually, a number of 'extrametricality' theorists have

addressed the ‘*product* puzzle’. Selkirk (1980) has pointed out that light syllables are never stressed in pre-stress position in English, except initially. Kager (1989:143) observed that most if not all (L) feet occur under main stress in disyllabic words, e.g. *sátire*, *éssày*, arguing that the main stress is forced to land on a light syllable when extrametricality leaves no alternative for it. Then what is special about LH disyllables is that they (in terminology of Hayes 1995) suffer from the ‘unstressable word syndrome’. There are three strategies to deal with this situation. The first, found in *product*, is incorporating the final heavy syllable in the foot, at the expense of quantity-sensitivity, while respecting extrametricality in a weaker sense, by avoiding final stress (NONFINALITY in Prince & Smolensky 1993). A one-foot analysis is diagnosed by the reduced final syllable (the ‘Arab-rule effect’). The second strategy is to respect quantity-sensitivity and non-final main stress, while sacrificing foot binarity, as in (*sá*)(*tìre*). The third, found in *políce*, is to respect quantity-sensitivity and foot-binarity while sacrificing nonfinal main stress. But there is no chance of producing initial stress in \**áagenda*, since for such words there is a way to ‘satisfy’ non-finality, while still satisfying foot well-formedness, i.e. in *a(gén)<da>*.

Especially here, and also in other places in the book, Burzio’s lack of awareness of earlier work takes a rather serious form. For example on p. 37 Burzio argues that “in a sense, ‘destressing’ is empirically equivalent to the rule of ‘perfect grid’ of Prince (1983)”, without reference to Hammond (1984) and Prince (1985). On p. 96 in fn. 3, he remarks that “HV’s improvement over Hayes’s and earlier systems consists of reducing the post-stress destressing [...] and the pre-stress destressing [...] to the single rule in (1).” But it was Hammond (1984) who first collapsed these rules. On p. 62 it is observed that “both syllables closed by sonorants and those closed by *s* can function as metrically light because they allow reduction or ‘weakening’ of the vowel, with a consequent loss of quantity.” Earlier Kager (1989:117, 139) had noticed that “/s/ is more like a sonorant than an obstruent with respect to stress retraction”, and actually proposed that a syllable closed by a sonorant may become light (or ‘de-weighted’) in the weak position of a foot. On p. 96 Burzio remarks that “the factual generalization [...] correctly captured by HV’s analysis and other work is that a single light syllable cannot be metrified as a separate foot, which we may state as in (4). \*(L). This too is a natural condition, one that holds independently even in HV’s framework, which allows the foot (H), but not the one in (4), quite generally.” But actually Halle & Vergnaud (1987:238) explicitly argue that “the Alternator [...] will assign a line 1 asterisk to the initial syllable in words such as those in (28a)”, i.e., *banana* and *American*, and go on to introduce Stress Deletion as a repair. On the other hand, there is no reference to Kager (1989:141), who pointed out that foot well-formedness precludes an initial foot in words such as *banana*. And so on.

The second argument against extrametricality is that this misses the generalisation that the prevalence of ternary spans in word-final position reoccurs in non-final positions (SPE:115). Burzio’s analysis, based on the idea that ternarity is basic, has no problem in accounting for the similarity of secondary and primary stress feet in (*Tátama*)(*góuchi*) vs. (*Pámela*), and *Mo(nònga)*(*héla*) vs. *a(génda)*. However, a well-known problem for the ‘full-ternarity’ view (noticed by Halle 1973, Schane 1975, and Liberman & Prince 1977) is the fact that under primary stress, no ternary intervals occur (e.g. *manípulâte*), except in contexts of stress preservation (e.g. *óxygen - óxygenàte*, *manípulâte - manípulatòry*). Even in potential contexts of stress preservation, there is a strong tendency to restore the binarity of the primary stress interval (e.g. *órigín - oríginàte*, *cátholic - cathólicize*). It appears that primary stress is basically binary (modulo extrametricality), while secondary stress aligns with the left

word edge, except where stress preservation prohibits this. The asymmetry between primary and secondary stress retraction is taken as basic in the rule-based analysis of Hayes (1981), where all feet are binary. For Hayes, final ternarity is due to extrametricality, while nonfinal ternary feet (*Tàtamagóuchi*) are derived by destressing rules. One may, rightly, question the validity of destressing rules as Burzio does (and as Prince 1985 and Kager 1989 have done before him), but that still leaves the binarity of primary stress retraction unaccounted for. Burzio, addressing this puzzle in section 3.7.5, comes up with the following solution. He argues that words are encouched in a ‘fixed envelope’ with a rising slope toward the end. Thus, “the noted quantitatively smaller feet word-internally would then follow from the fact that the maximal stress in that position is lower than word-finally, due to the effect of the word envelope [...]” However, that actually predicts the reverse of what we find, namely that non-final secondary stress feet should be *smaller* while non-final primary stress feet should be *less affected* (and hence, be rightfully ternary). Burzio returns to the problem in Section 5.4, addressing it now in terms of numerical values, associated with foot types, and again on p.166, where he proposes a *Strong Retraction condition*:  $...(\sigma\sigma)(HW)\#$ , which ‘imposes a binary rather than ternary foot when preceding a final weak one’. This seems little more than a mere restatement of the observation.

Throughout Chs. 7-10, Burzio argues against the well-known distinction between ‘stress-sensitive’ and ‘stress-neutral’ affixes (or Level-1 vs. Level-2 affixes), to the extent that such a distinction is based on stress. His argument is that (i) so-called stress-neutral affixes are actually stress-shifting given the right context (e.g. *mómentary*, *momentárilý*, *árbitrarily*, *àrbitráriness*), (ii) so-called stress-neutral affixes may actually pose conditions on the metrical structure of the base that make sense only if these affixes are included in the full metrification of the word. For example, the suffix *-ful* strongly prefers bases that allow it to be metrified in a well-formed foot (ignoring extrametricality, as Burzio does), i.e. to monosyllabic stems, as in *láv-ful*, or stress-initial disyllabic stems, as in *plénti-ful*, but not longer stems, as indicated by the absence of words such as *\*póverty-ful*. These are interesting points, and they should be taken at heart by proponents of level-ordered phonology. Burzio goes on to develop an analysis of English suffixes ‘at large’ which is based on the notion of ‘suffix consistency’, i.e. the demands that a suffix makes on its position in the metrical structure. Interesting though it is, Burzio’s analysis of ‘stress-neutral’ suffixes introduces a number of devices that undo much of the restrictiveness of his previous proposals. For example, the analysis of the suffixes *-ness*, *-less* requires both foot-internal zero syllables, as in e.g. *cor(rúptØness)*, and non-final unfooted syllables, as in e.g. *(chárac)ter(lèssØ)*. Unfooted syllables weaken predictions about re-structuring, as they open up a possibility of by-passing ill-formed  $(\sigma H\sigma)$  ternary feet by an alternative binary parsing  $(\sigma H)\sigma$ . This incorrectly predicts that stress may be preserved in, e.g. *(ínfant)* - *\*(ífan)ti(cíde)*, rather than be restructured in the correct *in(fánti)(cíde)*.

Burzio’s theory of vowel length undergoes radical revisions throughout the book. The point of departure in Ch.3 is a theory which has an underlying length contrast and shortening of long vowels, much as in SPE and subsequent work. Under this theory, *nature* has an underlying long vowel in its first syllable, which then undergoes ‘trisyllabic shortening’ in *natural*, under conditions that Myers (1987) and Prince (1992) have insightfully related to extrametricality. However, in Ch. 5 Burzio radically changes this view, proposing that *nature* has an underlying short vowel, eliminating the need for trisyllabic shortening. Surface length in *nature* is due to vowel lengthening in a disyllabic foot  $(L\sigma) \rightarrow (H\sigma)$ , of course building an argument against  $(L\sigma)$  feet. Under

this view, exceptions to trisyllabic shortening (e.g. *obe:sity*) are not exceptions since there is no shortening. Instead they simply indicate that length may be underlying (as well as derived). Having claimed this advantage, however, Burzio in Ch. 10 miraculously returns to the traditional shortening view of SPE because of traditionally recalcitrant alternations in *blasphé:me* vs. *blásphe:mous*, and *aspí:re* vs. *áspirant*.

Burzio's generalisation concerning vowel length is that it aligns with *surface stress* even though the preservation of length between base and derived form is a major source of lexical variation. For example next to *blasphé:me* we find *blásphe:mous* (where length is lost), not *\*blasphémous*. While next to *desí:re* we find *desí:rous* (where length is retained), not *\*dési:rous*. Both surface alignments of stress and length, *blásphe:mous* and *desí:rous*, substantiate well-formed English feet, while *\*blasphémous* and *\*dési:rous* would not. This is an important generalisation, and as Burzio points out, one that cannot be directly expressed by a derivational theory. However, this effect may also follow from a binary foot theory plus extrametricality, when trochees (H), ( $\sigma$  L) are reinterpreted as output constraints. For example *\*blas(phé)<mous>* would require an ill-formed (L) foot, while *\*(blásphe:)<mous>* has ill-formed ( $\sigma$  H).

Section 10.3 attempts to show that the theory predicts the contexts in which lexical variation of vowel length occurs, vs. those where it does not. Burzio claims that variation is due to conflicts between *Generalised Shortening* (GS) requiring vowels to be short in the context of an affix, and *Stress Preservation* (SP) requiring the preservation of foot boundaries throughout a paradigm. While GS thus requires short stem vowels, SP may require short vowels to stay, or become, long, to guarantee paradigmatic identity in the location of foot boundaries. Two predictions follow from this.

First, wherever GS and PS are not in conflict, vowel shortening should generally take place. This is seen in trisyllabic shortening, e.g. *náture* vs. *nátural*. However, well-known counter-examples occur, e.g. *o(bé:se)-o(bé:sity)*, where *o(bésity)* would perfectly satisfy both GS and PS. These point to another constraint *length preservation*, requiring preservation of stem vowel length, which may sometimes outrank GS. But notice that if length preservation is accepted, the theory no longer makes any predictions about where variability occurs, since LP and GS are complete antagonists.

The second prediction is that when either GS or PS cannot be achieved due to a higher-ranking constraint on foot well-formedness, the other constraint automatically wins. For example, GS should automatically apply wherever SP cannot be achieved due to top-ranking foot requirements, e.g. *de(fá:me) - (dèfa)(mátion)*, not *\*de(fâ:)(mátion)*, due to the ban *\*( $\sigma$ )*. Again well-known exceptions occur, e.g. *into:nation*, with retention of a long stem vowel. Similarly, GS should never win where the output would violate foot well-formedness, e.g. in *(mí:gra:te) - (mí:grant)*. However, satisfying GS at the cost of a dispreferred foot *\*(L  $\sigma$ )* is exactly what happens in *(please) - (pleasant)*.

With respect to vowel shortening, Burzio makes the interesting observation that it is always triggered 'outside-in' by affixes (e.g. *[[general]-i:ze] - [[general-iz]-a:tion]*, rather than *\*[[general-i:z]-ation]*, and also *[[alleg]-o:ry] - [[alleg-or]-i:ze]*, rather than *\*[[alleg-o:r]-ize]*). He argues that rule-based theory cannot capture this generalisation, and must stipulate it as a directional asymmetry in the shortening rule. (E.g. Kiparsky 1979 refers to a pre-suffixal vowel in his shortening rule). However, the observation that shortening reflects the internal morphological constituency of a word does not follow directly from Burzio's theory, either. It perhaps would if word formation were a step-wise process, as in cyclic theories.

In the end, Burzio's theory turns out to have roughly the same 'exceptions' as the standard analyses. The contribution of this book is that it has placed lexical variability in the perspective of conflicting violable constraints, i.e. 'stress preservation' vs. 'metrical well-formedness'. This change of perspective is of great value, and will no doubt remain valid for future researchers of English stress.

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