

# Noun-Verb Stress Alternation: Its Nineteenth-Century Development and Its Earlier Historical Backgrounds<sup>1)</sup>

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## 1. Introduction

Aside from the general propensity of a disyllabic word to attract stress towards its first syllable, there is one predominant stress pattern recognised in Present-Day English (PDE): a diatonic, or stress-alternating, contour in noun-verb homograph pairs of which the noun is stressed on the first syllable (“paroxytonic”) while the verb on the second (“oxytonic”). Although the stress alternation has been well-known to students of English, there has not been much attention paid to its diachronic aspects or its historical background.

The best of its kind, a study made by Sherman helps to gain historical insight into the problem. He investigated how noun-verb homographs have shifted their prosodic contours through history by means of dozens of lexicographical and grammatical references mainly from the early Modern English period (EModE). A perhaps surprising discovery of Sherman’s includes the fact that diatones of the type *récord* (n.) – *recórd* (v.) account for no more than 11.41 per cent of all the disyllabic noun-verb homographs in the PDE vocabulary whereas isotones of the type *prómise* (n.) – *prómise* (v.) or the type *resúlt* (n.) – *resúlt* (v.) comprise 88.59 per cent.<sup>2)</sup>

Other enlightening findings of Sherman’s include the facts that “during the 17th and 18th centuries there were fewer noun-verb diatones than at the present time” and that “the creation of stress alternation is

more likely to occur as stress-retraction in an oxytonic pair than to occur as stress-advancement in a paroxytonic pair" (53). In other words, noun-verb homographs of the *résult* type have historically been the major source of innovative diatones. Plotting the growth of diatones diachronically from the sixteenth-century onwards, he revealed that they spread in a way that is reminiscent of the earliest phase of what theorists of language change have referred to as a lexical diffusion, a process in which change tends to start slowly, speeds up at a "take-off" point, usually placed at somewhere from 5 to 20 per cent of the population,<sup>3)</sup> and then slows down again towards the end of the diffusion with a long tapering tail.

I will not attempt here to give a full review of Sherman's or any other study,<sup>4)</sup> but will make three points that have remained unquestioned or unexplored in the previous studies of the present subject and therefore must be addressed particularly in this paper. Firstly, since the end point of a diachronic enquiry into diatones should be the present, a good updated list of diatones must be compiled in place of the outdated one by Sherman which was based on mid-twentieth-century British and American English. Although any attempt to update a list of items that are subject to change at this very moment should be more or less an underestimation, it is a necessary step to take since a revised list will provide a methodological starting-point, though a chronological end-point, from which to trace the historical development of diatones backwards in time.

The second aim of this paper is to describe the nineteenth-century development of diatones as closely as possible. Sherman examined the seventeenth to eighteenth centuries, but left the nineteenth-century nearly untouched. He only extrapolated the nineteenth-century configuration from evidence of the preceding centuries and a cursory observation of the first half of the twentieth-century. As I have attempted to investigate the twentieth-century configuration elsewhere<sup>5)</sup> to complement his cursory treatment, one of my purposes in the present study is to focus on the nineteenth century so that the four-century history of the diatonic stress pattern can be evaluated on an accumulation of facts

from individual periods including the least examined century.

In Section 4, I will give a historical account of conditions that would have contributed to the emergence and development of the diatonic stress pattern in EModE and afterwards, with reference to the preceding periods, as far back as Old English (OE) and even earlier. The historical background is worth discussing not only because hardly any studies of diatones have made a serious attempt to address the question from a long-term historical point of view, but also because one of the fundamental questions that students of a language change must ask is the actuation problem, i.e. why it happened at the time that it did, but not at another time.<sup>6)</sup> I will propose that the cumulative effect of several historical linguistic conditions, though apparently not related, was relevant to the diatonic stress pattern emerging and then becoming more and more productive from the EModE period onwards.

## 2. Updating a list of diatones

Although ideally I would compile as close to an exhaustive list as possible, such a list would likely be difficult to obtain. One reason is that an exhaustive list of words that are subject to an ongoing language change would have to be always updated. Another reason is that a list will always vary in its contents according to which references and how many of them are consulted and whether stress patterns are consulted only in standard varieties of English. Yet another concern is about how to categorise an item that allows variation in its stress pattern.

The following are my assumptions in constructing the list. The list should be inclusive in the way that words are considered diatonic if any of the standard references consulted, whether of the British or American variety, points to a possible diatonic stress pattern. Admittedly, such an inclusive approach could result in an overestimation of diatones, but one justification would be to keep the result as closely comparable as possible to Sherman's, which was equally inclusive. It is also justified on theoretical grounds in that every language change must entail variation, although every variant does not result in a language change. On the other hand, my list is conservative in the sense that

diatonic neologisms of which dozens must have been added to the English vocabulary over the last decades have not been searched for in any systematic way. In other words, I have not attempted to make exhaustive searches for diatones in the major dictionaries of the late-twentieth- and early twenty-first-centuries.

The following list contains 227 diatones that I have collected from various sources. About two-thirds of the diatones are taken from Sherman's 150 diatones, of which four (i.e. *exile*, *outlaw*, *recast*, and *repeat*) have been left out because I was not able to confirm their diatonic status by any of the contemporary references *LPD3*, *EPD17*, and *OED2*. The rest of the list are diatones from miscellaneous sources, including those that have by now shifted from Sherman's isotones, and those listed in Fudge (189–92) and Jespersen (*Modern* 173–82). The seventy-six items with a star are those that recur in the nineteenth-century references I consulted, as we will see in the next section.

\**abject*, *absent*, \**abstract*, \**accent*, *addict*, *address*, *affect*, *affix*, *alloy*, *ally*, *annex*, \**aspect*, *assay*, \**augment*, *blackmail*, \**bombard*, *cement*, *chagrin*, \**colleague*, \**collect*, *combat*, *combine*, \**commerce*, *commune*, \**compact*, \**complot*, \**comport*, \**compound*, \**compress*, \**concert*, *concord*, \**concrete*, \**conduct*, \**confect*, \**confine*, \**conflict*, *congress*, *conscript*, \**conserve*, \**console*, \**consort*, *construct*, *consult*, *content*, \**contest*, \**context*, \**contract*, \**contrast*, *control*, \**convent*, \**converse*, \**convert*, \**convict*, \**convoy*, *costume*, *curvet*, *damask*, *decline*, *decoy*, *decrease*, *default*, *defect*, *defile*, \**descant*, \**desert*, *detail*, *dictate*, \**digest*, *discard*, *discharge*, \**discord*, *discount*, *discourse*, *dislike*, *dismount*, *dispatch*, *dispute*, \**efflux*, *egress*, *eject*, *employ*, *ensign*, *entail*, \**entrance*, \**escort*, \**essay*, *excerpt*, *excise*, *exploit*, \**export*, \**extract*, \**ferment*, *finance*, *foment*, \**forecast*, \**foretaste*, *gainsay*, *humdrum*, *impact*, *implant*, \**import*, \**impress*, *imprint*, *impulse*, \**incense*, *incline*, *increase*, *indent*, *infix*, *inflow*, *ingress*, \**inlay*, *inlet*, *insert*, *inset*, *instinct*, \**insult*, *intern*, *intrigue*, *invert*, *invite*, *legate*, *levant*, *mandate*, *masthead*, *misprint*, \**object*, *offset*, *outcast*, *outcry*, *outgo*, \**outleap*, \**outlook*, *outpour*, *outspread*, *outstretch*, *outwork*, *perfect*, *perfume*, *permit*, *pervert*, *placard*, *post-date*, *prefect*, \**prefix*, \**prelude*, \**premise*, \**presage*, \**present*, *proceed*, *process*, \**produce*, \**progress*, \**project*, *prolapse*, *prospect*, \**protest*, *purport*, *rampage*,

*rebate, \*rebel, rebound, rebuffer, rebuild, recall, recess, recharge, recoil, \*record, recount, redraft, redress, refill, refit, refund, \*refuse, \*regress, rehash, reject, relapse, relay, remake, replay, report, \*reprint, rerun, research, reset, \*retail, retake, retard, retort, retouch, retreat, revise, rewrite, romance, segment, sojourn, sub-let, \*subject, sublease, surcharge, surmise, \*surname, surtax, \*survey, suspect, \*torment, \*traject, \*transfer, transform, transplant, transport, transverse, traverse, turmoil, \*undress, upcast, update, upgrade, uplift, upright, uprising, uprush, upset, and \*upstart.*

To the list I may add the following *re*-neologisms, which I have found in an unsystematic search of *OED2*: *re-let, recon, redo, refan, regrind, rejig, relaunch, remodel, remould, resit, and rethink*. They are out of consideration in the present study, however, since they are diatonic items whose nominal or verbal use came into being only in the second half of the twentieth century and whose earlier history therefore cannot be traced.

### 3. Nineteenth-century development

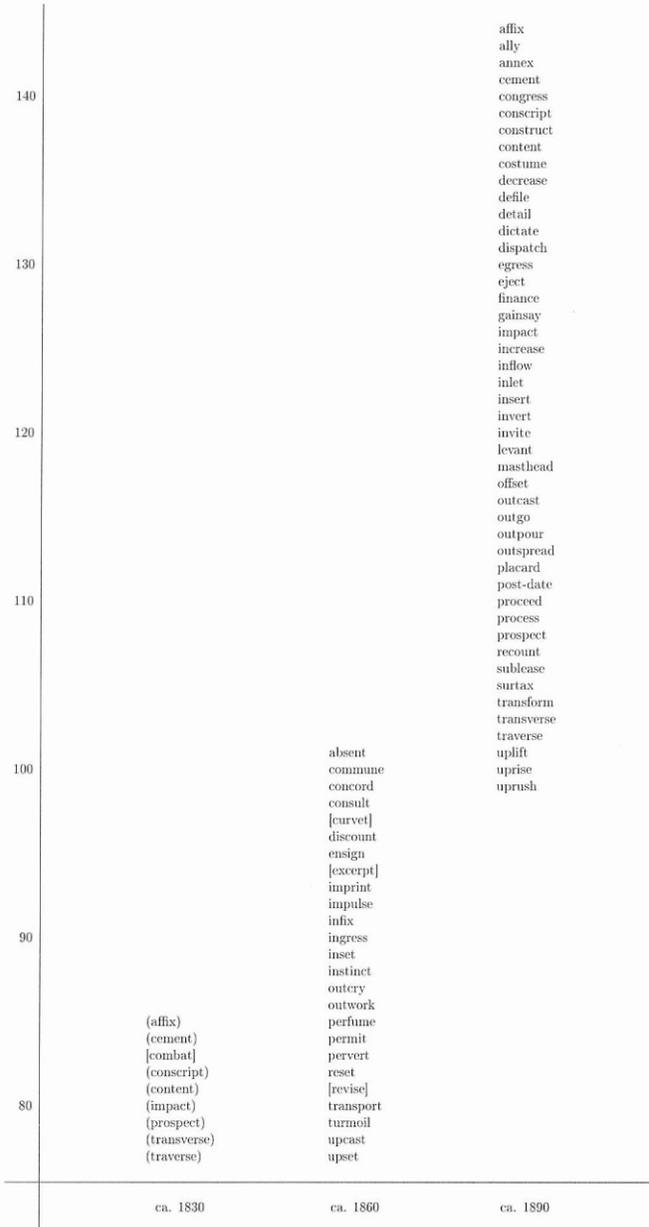
To examine the nineteenth-century development of diatones, I consulted six popular dictionaries that represent the century, five of the American variety and one of the British (Table 1).<sup>7</sup> For the sake of diachronic comparison, they are broadly divided into three periods, *ca.* 1830, *ca.* 1860, and *ca.* 1890.

Table 1: Nineteenth-Century Dictionaries Consulted

<i>ca.</i> 1830	<i>ca.</i> 1860	<i>ca.</i> 1890
<i>Web1828</i>	<i>Wor1860</i>	<i>Web1890</i>
<i>R1837</i> (BrE)		<i>Whit1891</i>
		<i>F1894</i>

The survey revealed that the seventy-six items (those with a star in the list given in the previous section) were diatonic throughout the century, that is that they had become diatonic by the early nineteenth-century and continued so until the end of the century.

Let us now look at innovative diatones from one period to the next. Figure 1 graphically represents the differentials among the periods as

Figure 1: Growing Class of Diatones over the 19th Century<sup>8)</sup>

well as the cumulative totals of diatones, with the seventy-six items in the previous section implicitly understood for all the periods.

An overview of the facts allows me to make two points. The first is that more diatones were added between the last two periods than between the first two (a total of 86 circa 1830, 101 circa 1860, and 144 circa 1890). This may be practically due to the greater number of dictionaries consulted for *ca.* 1890, but the greater spread towards the end of the century is no less interesting because Sherman's corresponding graph (an extrapolated one, to be precise, for his lack of nineteenth-

### Lexical Diffusion of Diatones

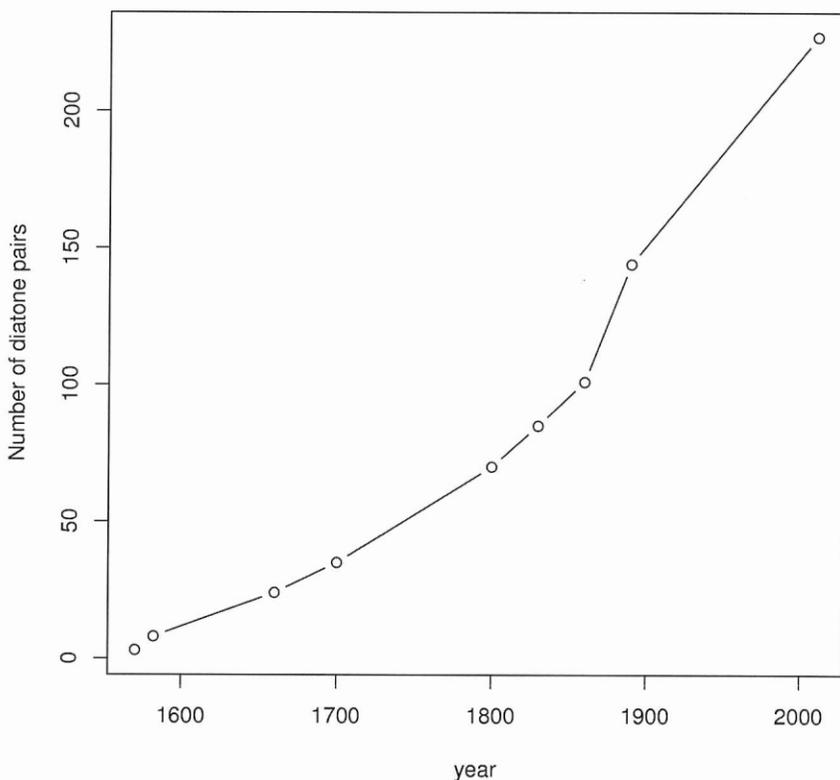


Figure 2: Diffusion of Diatones up to the Present

century evidence, as I mentioned earlier) neither showed so steep a curve nor so large a number of diatones for the latter half of the century.

Secondly, although the steeper curve between *ca.* 1860 and *ca.* 1890 might suggest a possible take-off in the diffusion of diatones, the twentieth-century development slowed down, as presented in Figure 2<sup>9</sup>) as if the rapid growth in the late nineteenth-century had been an abortive take-off or merely a haphazard boom. It is to be concluded in hindsight that it was not a real take-off but only a fluctuation that may recur before a potential take-off point to come. The late nineteenth-century case shows that estimating a long-term change from a short-term point of view can be prone to a premature conclusion.

#### 4. Historical explanation

The furthest back one might get to find out any sign of the stress alternation is Proto-Indo-European. Aside from its theoretically reconstructed forms, there is evidence attested from the oldest Indic and Hellenic languages to suggest that compounds of preposition plus noun were older than those of preposition plus verb (Jespersen, *Modern* 173–74).

That nominal compounds were attested earlier than their verbal counterparts in old Indo-European languages is arguably linked with the fact that OE had compounds that showed noun-verb stress alternation. As a Germanic language, OE regularly showed primary stress on the stem of a word, i.e. the stem syllable in a monosyllabic word or the syllable immediately following the prepositional prefix in a polysyllabic word. There was, however, an important exception to the rule as far as polysyllabic words were concerned. As Campbell (30) remarks:

The main exception to this rule [a stress accent upon the first syllable] is due to the fact that in Germanic a syntactic combination of prepositional adverb with verb was not yet a single word at the time when the main stress of words was fixed on the first syllable, and such combinations ultimately developed into compound words stressed on the second element. These remain in the West Germanic languages: OE *apénčan* devise, *oþfléon* flee, *wipsácan* deny.

OE stress-alternating pairs likely supplied a model for the productive process of noun-verb stress alternation that was to emerge much later in EModE, until which period they retained their potential to initiate the effect.

Another diachronic process, as long-standing as the one mentioned above, that indirectly led to increased productivity of stress alternation was the gradual levelling and eventual loss of the inflectional system from the late OE through early Middle English (EME) to the late Middle English (LME) period. In the period of "full inflection" (OE), nouns had one set of inflectional endings while verbs had another (e.g. *lufu*, *lufe*, *lufa*, *lufum*, etc. for the noun; *lufian*, *lufie*, *lufast*, *lufa*, etc. for the verb); in the following period of "levelled inflection" (EME), it was increasingly difficult to distinguish through morphology alone between nouns and verbs, in particular in the "base" forms (e.g. the nominative singular *love* and the infinitive *love(n)*); in the final period of "lost inflection" (LME and afterwards), nouns and verbs fell into one and the same form in many of their inflections (e.g. the nominative singular *love* and the infinitive *love*). As a result of the inflectional levelling and loss, the morphological process of conversion, or zero-derivation, became possible. The loss of inflection alone cannot have triggered conversion, but it is safe to say that it set the stage for conversion, and then for the noun-verb stress alternation as well since the former is a pre-requisite for the latter.

Yet another linguistic reorganisation that was going on sometime from ME to EModE was the development of two distinct stress rules that have survived, if modified, to this day: the Germanic Stress Rule (GSR) and the Romance Stress Rule (RSR).<sup>10</sup> There has recently been argument over when the latter began to exert a major influence on the accentual system of English. The traditional view is that it was in the course of ME when RSR developed along with the extraordinary influx of French vocabulary in the thirteenth and fourteenth centuries.<sup>11</sup> The more recent observation, as noted by Minkova, postpones to EModE the critical period of RSR becoming significantly influential.<sup>12</sup> In this view, it was not French loanwords in ME but Latin loanwords abun-

dantly introduced in early ModE that raised RSR to a fundamental principle alongside the entrenched GSR which it threatened to overtake. Considering that free variation of stress patterns within a word is a pre-requisite for the part-of-speech governed stress alternation, the proposition that RSR established itself only in EModE would be illuminating in that it would coincide with the earliest attestation of diatonics.<sup>13)</sup>

The huge influx of Latin vocabulary in the sixteenth century can be seen as a contributor to the diatonic stress pattern from another point of view. In addition to their supposed effect on the stress system of the language, Latin loanwords themselves provided a rich source of disyllabic, and therefore potentially stress-alternating, words, with morphological structure of predominantly prefix plus base.

One final factor, with diachronic as well as synchronic dimensions, concerns rhythmic alternation that characterises the prosody of English, and indeed many languages. Kelly (107) finds that “disyllabic verbs were more likely than disyllabic nouns to receive an inflection that adds a syllable onto the word” and that “[b]ecause such syllables are weakly stressed, rhythmic alternation would be created if the disyllabic word received on the second syllable (e.g., ‘suggesting’) rather than the first (‘promising’).” Thus disyllabic verbs are typically followed by inflectional suffixes such as *-ing*, *-ed*, *-(e)s*, the first of which invariably adds a syllable while the second and the third do so only if the stem ends in a dental plosive (/t/ and /d/) or sibilant (/s/, /z/, /ʃ/, /ʒ/, /ʒ/, and /ʒ/), respectively. On the other hand, the only inflectional suffix that nouns take is the plural or possessive *-(e)s*, the syllabic status of which depends on the same phonological environment as for its homophonous suffix to the verb. Kelly (113) reports, “In particular, noun-verb homographs are more likely to possess contrasting stress patterns if they end in the dental stops /t/, as in “suspect,” and /d/, as in “record.”<sup>14)</sup> The statistical difference between nouns and verbs that arise from the different suffixes they take may not be too acute if significant, but, as Kelly (110) argues, an accumulation of slight behavioural differences in innumerable daily utterances would amount to a propensity for disyllabic nouns

towards a paroxytonic pattern and for disyllabic verbs towards an oxytonic pattern.<sup>15)</sup>

Kelly's argument, however, may not give a strong account for the historical emergence of diatones in EModE because such suffixes as *-ed* and *-(e)s* had mostly lost their syllabic status by then and therefore the motives behind disyllabic verbs preferring an oxytonic pattern would have weakened if not totally disappeared.<sup>16)</sup> Nevertheless, I still find it reasonable to argue that the previously developed distinction in stress position between nouns and verbs at least oriented their later development (i.e. nouns towards a paroxytonic pattern and verbs towards an oxytonic pattern), thus pushing along the line developed far back by the OE model. I will not put too much emphasis on the possible historical role that Kelly's proposed morphonological effect might have played, but it is potentially one of the underlying conditioning factors that made indirect contributions to the emergence and development of diatones.

In the above, I have enumerated some historical background conditions against which noun-verb stress-alternating pairs might have appeared. By EModE, the stage had thus been set for noun-verb stress alternation to be actuated whenever the relevant factors might become extensive enough to overcome a threshold of linguistic equilibrium. Conversion was now a common method of lexeme formation due to the loss of inflectional endings; the variability in stress placement in the wake of the introduction of RSR would have enabled converted nouns/verbs to vary in stress; a large influx of Latin disyllabic word stock would have readily fed into such conversion; and there was always a model of noun-verb stress alternation that dated back to OE or earlier and that was arguably supported also by the respective rhythmic biases of nouns and verbs.

If these conditioning factors were not sufficient, another factor of fundamental importance applied: pursuit of formal and functional distinctness. Although conversion was (and actually is) an extremely convenient mechanism for lexeme formation, the obvious downside (or in fact the definition) was the lack of a formal distinction between semantically related but syntactically different pairs of words. Noun-verb

homonyms do not necessarily lead to a systemic catastrophe because they belong to different syntactic categories, but this is not to say that a device that can help to distinguish formally between a pair of related words would be unwelcome. I argue, therefore, not that noun-verb stress alternation started to be a productive mechanism for lexeme formation simply because the historical conditions for it were fulfilled by EModE, but that a universal psycholinguistic pursuit of formal as well as functional distinctness combined with the historically prepared conditions to allow speakers to take advantage of the prosodic device of stress alternation to distinguish between converted nouns and verbs.

To sum up the discussion above, one answer to the question of why diatones developed as they did particularly in EModE would be that several historical factors, apparently unrelated to one another, coincided in that very period to produce a cumulative effect that allowed diatones to achieve greater productivity.

## 5. Conclusion

The present study first compiled an updated list of diatones. It then complemented past diachronic studies on noun-verb diatones by sorting out evidence from nineteenth-century dictionaries. The survey of the nineteenth-century development not only enabled a better understanding of the diffusion of diatones, especially the steepening curve towards the end of the century, but also suggested how the diffusion in each period must be viewed in relation to those in adjacent periods.

The last section finally addressed the question that has been left relatively unexplored: why diatones developed when they did, during the EModE period. Various historical factors were recognised, but any single factor would have been too weak to resolve the actuation problem. Rather, it is most likely that a combination of apparently irrelevant factors coincided in the particular period to produce a cumulative effect to make diatones viable.

I will close the paper by mentioning a number of questions left to be addressed as to the diachronic development of diatones. Despite the emphasis that many of the past studies understandably put on the

twentieth-century development of diatones, a large amount of PDE evidence is yet to be sorted out. It will be useful, for example, to chronologise innovative diatones into the subperiods of some thirty-year intervals as in the present study. As I argued above in a limited way, it will also be rewarding to enquire into how different word-final sounds might affect the schedule of noun-verb homographs shifting to diatones. Another related question might concern why homographic adjectives such as *abstract* and *subject* tend to behave in line with their nominal rather than verbal counterparts in terms of stress patterns.

The shift of noun-verb homographs to a diatonic pattern is an ongoing and increasingly productive process which deserves more attention than it has received. It is worth a closer examination not only to consider where to place it within complex systems of PDE stress patterns but also as a currently observable, if long-standing and historically motivated, example of lexical diffusion.

#### NOTES

1) This study was supported in part by a Grant-in-Aid for Young Scientists (B) for 2011 (No. 21720178) from the Japan Society for the Promotion of Science (JSPS), an organisation to which I wish to express my thanks for their generous financial assistance.

2) Isotones are broken down into oxytones of the *promise* type at 72.24 per cent and paroxytones of the *result* type at 16.35 per cent. The other logically possible type, that is oxytonic for the noun and paroxytonic for the verb, is effectively unknown in English, as Fudge considers it an "inviolable rule" (166).

The full breakdown of Sherman's counting regardless of the number of syllables is as follows:

- noun-verb homographs (3,896)
  - monosyllabic (2,139)
  - disyllabic (1,315)
    - diatonic (150)
    - isotonic (1,165)
      - paroxytonic (950)
      - oxytonic (215)
  - polysyllabic (442)
    - diatonic (70)
    - isotonic (372)

3) The average take-off point as suggested here is, as I understand from Rogers (12, 274, and 360), based on the empirical findings of general diffusion studies.

4) A review of Sherman's study is given in Section 2 of Hotta's paper. Another large-scale survey by Sonderegger and Niyogi, just distributed as a preprint, adopts a mathematical approach in describing and explaining the historical stress shift of diatones and comes with a rich data set culled from dozens of historical dictionaries and other references on their website. Their data include nineteenth-century stress shifts on which the present study focuses, but their target items are restricted to Sherman's 150 while my own survey considers 227 items that I have compiled in addition to Sherman's. Besides, my interest lies more on the diachronic diffusion of diatones than on the psycholinguistic motives behind stress shift, or what they call dynamical systems models.

5) Hotta's paper deals with the twentieth-century evidence of diatones within the framework of lexical diffusion.

6) One of the fundamental questions as to language change proposed by Weinreich et al. (102) is: "What factors can account for the actuation of changes? Why do changes in a structural feature take place in a particular language at a given time, but not in other languages with the same feature, or in the same language at other times? This *actuation problem* can be regarded as the very heart of the matter."

7) It must be admitted that the dictionaries consulted are biased in favour of American English and represented unevenly in chronological terms. One inevitable reason for this is that the lexicographical activities in the nineteenth-century were predominantly American, with the two Webster's editions marking the early and late parts of the century, inspiring other non-Websterian American lexicographers through the century. On the other hand, the British lexicography of English remained relatively stagnant until the *OED* project was launched in the last quarter of the century. The first edition of *OED* (*OEDI*) was consulted for the present purpose of examining the nineteenth-century configuration, but despite the earliest fascicles being published before the turn of the century, the dictionary as a whole was completed as late as 1928, so that it may not be qualified as a proper representative of nineteenth-century British English.

8) Parentheses in the *ca.* 1830 column designate words that fail to appear in the *ca.* 1860 column (apparently not so much because they represent real diachronic changes as because of the contingency of the references consulted) while they reappear as diatones in the *ca.* 1890 column. Likewise, square brackets in the *ca.* 1830 and *ca.* 1860 columns designate words not represented in any of the references consulted for *ca.* 1860 and *ca.* 1890, respectively. All the other words unmarked in a column should be assumed to be included in the column to its immediate right. The top of the ladder in each column corresponds to the cumulative number of diatones attested for the period.

9) The pre-nineteenth-century section of the curve is taken from Sherman (54–55), while the twentieth-century section is, admittedly rougher than the nineteenth-century counterpart, mine.

10) For historical accounts of the competition between the two rules, see Lass (Vol. 2, 85–90) and Lass (Vol. 3, 125–28).

11) One of the original and best statistical witnesses to rich French loanwords in ME is Jespersen (*Growth* 86–87).

12) Minkova notes (172–73):

[I]n spite of the influx of 10,000 Romance loanwords, words of Germanic origin continued to constitute the bulk of the core vocabulary of Middle English,

accounting for seventy-five to ninety-five per cent of the word-stock, depending on register. It was only during the Renaissance that the balance began to shift in favour of non-Germanic patterns, bringing about the co-existence of two typologically different systems of stress in modern English.

- 13) Levins in 1570 named three words as diatonēs: *outlawe*, *rebel*, and *recorde*. They are the first recorded noun-verb diatonēs.
- 14) Of all the 227 diatonēs listed in Section 2, those ending in dental plosives account for 121 (53.30 per cent).
- 15) Kelly and Bock (398–99) address rhythmic alternation from a syntactic point of view. Their study reveals that the stress patterns of words surrounding verbs and nouns pressure verbs into iambic contours more than nouns. They also point to a striking correlation between the historical direction of conversion (from noun to verb or the other way round) and the stress contours of the homograph pairs. Their argument thus supports a morpho-syntactic pressure that is applied on disyllabic nouns towards a paroxytonic pattern and disyllabic verbs towards an oxytonic pattern.
- 16) Dobson (Section 310) dates the loss of non-final *e* in inflectional endings to “comparatively early in the fifteenth century,” but also notes (Section 311) that the loss was “less rapid and complete in some cases than in others” and that “-*ed* was still often a separate syllable until the end of the seventeenth century” as well as *-est* and *-eth*.

## DICTIONARIES

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- OED1* = Murray, James Augustus Henry, Henry Bradley, William Alexander Craigie, and Charles Talbut Onions, eds. *The Oxford English Dictionary*. Oxford: Clarendon, 1884–1928/1933.
- OED2* = Simpson, J. A. and E. Weiner, eds. *The Oxford English Dictionary*. 2nd ed. Oxford: OUP, 1989.
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