This paper is a follow-up investigation of Sherman’s (1975) study on stress shifts. The new paroxytonic stresses since 1975 among Sherman’s 215 oxytones and 150 diatones, together with the present stress patterns of the 252 N-V pairs under 12 prefixes examined here, in American and British English, clearly delineate an ‘Oxytone → Diatone → Paroxytone’ migration path. This constitutes a departure from Sherman’s two-origin (‘O → D’ and ‘P → D’) theory of diatone formation as well as disproves his claim that present paroxytone pairs have not undergone any shift to diatonic status. Phonotactic structures (Secondary Stress, first syllable coda, and [-t/d] ending) have no bearing on stress shifts.

Keywords: diatone, noun-verb pairs, stress shifts, lexical diffusion, language change

1. Introduction

English disyllabic homographic Noun-Verb pairs may appear in one of the three stress patterns: a. both noun and verb are oxytones (Final-Stressed; or O; e.g. preserve, reform), b. both are paroxytones (Initial-Stressed; or P; e.g. pressure, rescue), and c. noun a P and verb an O, which is called a diatone (or D; e.g. present, rebel). In addition, there are cases in which the noun and/or the verb may be either an O or a P. Such cases are clearly changes in progress.

Sherman (1975) lists 215 oxytones and 150 diatones, and talks about 950 paroxytones (without listing them) based on SOED (Shorter Oxford English Dictionary) 1964 and Onions 1944 for British English (or, BrE), and Webster’s Third New International Dictionary 1961 and 1963 for American English (or, AmE). He has carefully outlined the stress shifts in the 150 diatones in 33 dictionaries dating from 1570 to 1798, whenever available. He (1975: 47) also points out that in Old English (according to Campbell (1959: 30)) there are noun-verb pairs (not homographs) which exhibit stress
alteration, with word-initial stress for nouns and non-initial stress for verbs: e.g. 'bīgenga 'inhabitant' vs be'gān 'to occupy'.

On the relations between oxytones, diatones and paroxytones, Sherman’s (1975: 55) views are as follows:

1. The majority of diatones are preceded by oxytone pairs rather than paroxytone pairs. And if a diatone reverts to isotonic status (an infrequent occurrence), the reversion occurs to the paroxytone rather than the oxytone pair.

2. There are in fact only nine instances in which the evidence for stress advancement is clear. (Sherman is referring to cases of paroxytones changing into diatones.)

3. The majority (80%) of current isotonic N-V pairs are paroxytones, which have not undergone any shift to diatonic status, nor are they likely to.

4. Future diatones will probably be drawn largely from the current oxytonic N-V inventory, and may ultimately include all those pairs. Here are three points of contention against his assertions:

5. Sherman regards D as the ultimate stage of stress shifts; this paper argues that P is the ultimate stage and current P pairs have undergone an ‘O → D → P’ change, with possible alternative stress for the noun and/or the verb at the D stage (cf. Tables 1 and 2 below).

6. Sherman sees D reverting to P; the discussions below will show that such cases denote completion of a change rather than reversion.

7. Sherman indicates that all the current O pairs may eventually become D; the apparently on-going process of ‘O → D → P’ change points to an ultimate destination at P.

2. Direction of Stress Shifts in Contemporary Data

A simple way to determine the direction of stress shifts in N-V pairs is to look at contemporary data. Table 1 reveals that in AmE (as in Merriam-Webster Online, unless otherwise specified), one of Sherman’s 215 O pairs has become isotonic P and another 21 pairs have acquired P stress in the nouns, either as the sole or an alternative pattern. Among the 21 pairs, 8 also have P stress as an alternative pattern for the verbs. BrE (as in Cambridge Advanced Learner’s Online, unless otherwise specified) has only 8 pairs that have acquired P stress in the nouns; nevertheless, 3 of them have become isotonic paroxytones.
Table 1. New Paroxytonic Stresses in Sherman’s 215 Oxytonic N-V Pairs in American (and British) English

| Stress pattern | American (and British*) English | No. of new P stresses |
|----------------|---------------------------------|-----------------------|
| Paroxytone     | Merriam-Webster Words           |                       |
| n. – 1, v. – 1 | trephine (surmise\(^1\) garage travail\(^*\) – BrE) | 1 (3)                 |
| n. – 1, v. – 2 | replay (also BrE)               | 1 (1) 2(2)            |
| n. – 1, v. – 1 (v. lost) | rebus (also BrE\(^*\)) | 1 (1) 10(4)          |
| n. – 2, 1, v. – 2 | hollo (also BrE\(^*\)) | 1 (1) 8(2)           |
| n. – 2, 1, v. – 2 | default dislike exchange garotte romance (also BrE) syringe travail | 7 (1) 11(1) |

|                      |                               |                       |
|----------------------|-------------------------------|-----------------------|
| Diatone              |                               |                       |
| n. – 1, v. – 2      | entail retouch revise trepan | 4                     |
| n. – 2, 1, v. – 1   | decline dispatch dispute (also BrE) | 6 (1) 11(1) |
| n. – 2, 1, v. – 2   | employ hurrah\(^*\) surmise  |                       |
| n. – 2, 1, v. – 1   | guitar                        |                       |

There are 9 non-Romance words (bespeak, japan, salaam, shampoo, siamese, taboo, tattoo, tehee, vandyke) among the 215 oxytones, leaving 206 Romance words\(^*\). There are also 9 words (demean, distain, misprize, profane, obstruct, remand, revolve, suppose, traject) that have lost the noun forms (where paroxytonic stress occurs first) in AmE, thus, leaving 197 Romance words for viable calculation (and 198 in BrE; revolve retains its noun form in Collins English Dictionary).

\(^{1}\)Surmise: [isotonic O] in the Compact Oxford English Dictionary; [n. – O, P; v. – O] in Collins English Dictionary; [isotonic P] in Cambridge.

\(^{*}\)British English: according to Cambridge Advanced Learner’s Dictionary.

\(^{*}\)British English, status in Collins English Dictionary, where Cambridge has no listing.

\(^{\dagger}\)American English, verb of hurrah taken from The American Heritage Dictionary of the English Language, 4th ed.; Merriam-Webster Online has no listing.

\(^{\dagger}\)Romance words are those that came immediately from Romance languages, despite possible different ultimate sources. (E.g. guitar: Spanish < Arabic < Greek; garage: Middle French garrer < probable Old Norse vara, akin to Old High German biwarōn.)
As the great majority of prefixed disyllabic N-V pairs are of Romance origin, this paper focuses on Romance loans. All of Sherman’s examples end in heavy syllables (i.e. ending in a long vowel, diphthong, or consonant). For Romance loans, a heavy-syllable ending entails a Final-Stressed pattern upon importation (cf. Section 3.1).

Excluding the inapplicable cases, the increases of P stress in Romance loans in AmE and BrE are 11.2% (22/197) and 4% (8/198), respectively.

On the surface, the ‘11.2% vs 4%’ contrast shows that AmE has been moving faster than BrE in stress shift towards paroxytones. Yet, that 3 words have become isotonic paroxytones in BrE versus only 1 word in AmE indicates that movements in BrE may not really have been slower. Very probably, Merriam-Webster, which acknowledges many alternative stresses, is more descriptive than Cambridge. In addition, as given in the tables on the 12 prefixes below, convoy, contact, concrete, commune, detail, perfume, prospect, and surmise have become isotonic paroxytones in BrE, but not yet, or not entirely, in AmE. Outside of the scope of prefixed N-V pairs, for instance, brochure, café, and chateau have become paroxytones in BrE but not yet in AmE. Nevertheless, since at face value a higher number of changes have been registered for AmE, Table 2 deals with AmE.

Table 2. Current Stress Patterns of Sherman’s 150 Diatones in American English

| Stress pattern | Merriam-Webster | Word | No. of new P stresses |
|----------------|-----------------|------|----------------------|
| Isotonic P v. 1 | n. - 1          | exile | 4                    |
|                 | v. - 1          | outlaw<sup>G</sup> |                      |
|                 | v. - 1          | prelude |                      |
|                 | v. - 1          | surcharge |                      |
| V. having alternative P stress | n. - 1 | accent | 19                  |
|                 | v. - 1, 2       | compound |                      |
|                 | v. - 1          | conflict |                      |
|                 | v. - 2, 1       | contract |                      |
|                 | v. - 2, 1       | discord |                      |
|                 | v. - 2, 1       | discount |                      |
|                 | v. - 2, 1       | excise |                      |
|                 | v. - 2, 1       | incense<sup>1</sup> |                      |
|                 | v. - 2, 1       | infix |                      |
|                 | v. - 2, 1       | inset |                      |
|                 | v. - 2, 1       | outset |                      |
|                 | v. - 2, 1       | outage<sup>G</sup> |                      |
|                 | v. - 2, 1       | prefix |                      |
|                 | v. - 2, 1       | protest |                      |
|                 | v. - 2, 1       | refund |                      |
|                 | n. lost         | subject |                      |
|                 | v. - 2, 1       | torment |                      |
|                 | v. - 2, 1       | transfer |                      |
|                 | v. - 2, 1       | transport |                      |
|                 | v. - 2, 1       | upgrade<sup>G</sup> |                      |
| (n. lost)       | v. - 2, 1       | postdate | 1                    |
Both n. and v. having O, P stresses

|        |              |                             |   |
|--------|--------------|-----------------------------|---|
| n. – 1 , 2 | v. – 1 , 2   | concrete presage rebound recess sojourn sublease | 6 |
| n. – 1 , 2 | v. – 2 , 1   | abstract alloy ally assay decoy decrease discharge discourse essay exploit increase survey traverse | 13   |
| n. – 2 , 1 | v. – 2 , 1   | address cement detail research | 4 |

Total new paroxytonic stresses in the verbs

|        |                             |                     |   |
|--------|-----------------------------|---------------------|---|
| 72/150 = 48% | 150 (diatones) – 19 (non-Romance words) = 131 diatones of Romance origin. | 68/131 = 51.9% |

Diatone

|        |              |                             |   |
|--------|--------------|-----------------------------|---|
| n. – 1 | v. – 2       | addict affect affix bombard collect compact compress concert confect conscript conserve content converse convert convict desert digest egress legate impact incline insert insult invert misprint* object outgoG outspreadG* outworkG pervert present project produce progress purport rebel recast* record refill refuse regress rehash reject reset* suspect transplant upliftG upriseG upshG | 49   |

Either n. or v. form lost

|        |              |                             |   |
|--------|--------------|-----------------------------|---|
| n. – 1 | v. – 2       | inflow inletG outcastG outcryG outlookG transverse upcastG uprightG upshG | 9 |
| (v. lost) |              |                             |   |
| n. – 2 | v. – 2       | eject outstretchG redraft | 3 |

N. having alternative O stress

|        |              |                             |   |
|--------|--------------|-----------------------------|---|
| n. – 1 , 2 | v. – 2       | commune confine defect ferment impress permit recount refit reprint | 9 |
| n. – 2 , 1 | v. – 2       | defile indent recall recoil recoil redress repeat relapse | 7 |

Oxytone

|        |              |                             |   |
|--------|--------------|-----------------------------|---|
| n. – 2 | v. – 2       | undressG | 1 |

Total 150

*Words of entirely Germanic origin (e.g. inlet, outlaw, outleap, outwork, outstretch, etc.) or with a Germanic prefix (e.g. un-, up-, out-) affixed to a Romance root (e.g. undress).

Stress according to American Heritage (where Merriam-Webster has no or incomplete information). Misprint: verb from American Heritage.

1Incense (v.): P, 13th C, ‘to perfume’; O, 15th C, ‘to arouse anger’.

2Outleap: stress according to Webster’s Revised Unabridged Dictionary, 1913.
Sherman (1975: 55) maintains that current paroxytones have not undergone a diatonic status; Table 2 exhibits changes from diatones towards paroxytones on a large scale, which constitute counterevidence to Sherman’s strong claim.

Among the 150 diatones listed by Sherman (1975), 4 have become isotonics *P*, 23 have O/P two stresses for both the nouns and the verbs, and another 45 have an alternative *P* stress for the verbs. In total, that is 48% (72/150) of the verbs having moved towards *P*. Among Romance loans, the percentage is 51.9% (68/131).

As a reference, Sonderegger (2010) compares 132 N-V pairs under 17 prefixes listed as oxytones in Boyer (1700), a French-English dictionary, to their present-day pronunciation as in CELEX (Baayen et al. 1996) and found that 23 pairs have changed into diatones. That is a 17.4% increase in *P* stress (in a span of 296 years).

Sherman (1975: 53) points out that since the 17th and 18th centuries there have been more cases of *O* changing into *P* than the reverse. This remark indeed shows that a shift towards *P* stress has long been in operation.

Such frequent moves towards paroxytone (as shown in Tables 1 and 2) uncover a clear route of stress shifts: ‘O → D → P’. This largely one-way traffic constitutes a theoretical departure from Sherman’s ‘O → D’ and ‘P → D’ two-origin theory of diatone formation.

3. Direction of Stress Shifts in Sherman’s Historical Data

Table 3 organizes the stress patterns of the 150 diatonic pairs in accordance with Sherman’s historical data.

Table 3. Stress Pattern Developments in Sherman’s 150 Modern English Diatonic N-V Pairs (based on Sherman (1975))

|     | O (Oxytone)* | D (Diatone)* | P (Paroxytone)* |
|-----|--------------|--------------|-----------------|
| O   | 27           | 13           | 7              |
| OD  | 27           | 6            | 5              |
| ODP | 2            | 2            | 1              |
| OP  | 4            | 2            | 2              |
| D   | 6            | 2            | 1              |

|     | 66           | 30           | 18             |
|     | 57.9%        | 26.3%        | 15.8%          |

|     | 114          |              |                |
|     | 150          |              |                |

*Words are categorized under their respective earliest stress patterns, followed by subsequent patterns as recorded in the dictionaries.*

*Under ‘P’, 1 is ‘PP’; under ‘PD’, 3 are ‘PPD’ (cf. discord in Section 3.1).
Of the 18 words under category $P$, Sherman (1975: 55) acknowledges 9 words ($combat$, $dictate$, $discord$, $progress$, $purport$, $sojourn$, $transfer$, $traverse$, $outwork$) as having changed from $P$ to $D$. He then adds another 5 ($accent$, $bombard$, $exile$, and $postdate$ from category $P$; $contrast$ from $OPD$ under category $O$) where paroxytone pairs existed “but for a brief period” and “probably only as a reflection of the transition from oxytone to diatonic status” (which is a rather problematic remark). Thus, he actually sees a total of 14 items (13 from the $P$ category) as having changed from $P$ to $D$.

To be methodologically consistent within Sherman’s framework, all the 18 items under $P$ and all the 6 items under $OPD$ (as he recognizes one of them, $contrast$) ought to be acknowledged as having changed from $P$ to $D$.

3.1. Chronological Developments or Concurrent Overlaps

3 examples from Sherman’s 14 (fully or partially) acknowledged instances of $P$ to $D$ changes are given below, with his stress records from various dictionaries (given in initials with years of publication):

(8) $combat$ (1564 verb; 1567 noun).

$\begin{align*}
P & \quad n'-- \quad v'-- \quad M 1617, B 1700, D 1735, B 1736, J 1755. \\
& \quad \quad \quad \quad \quad \quad W 1791.
\end{align*}$

(Sherman: Unusual case of well-attested paroxytone which became diatonic after 1800.)

(9) $discord$ (ME verb; 1440 noun).

$\begin{align*}
P & \quad n'-- \quad v'-- \quad LL 1570, M 1617, B 1700, D 1735, P 1753. \\
O & \quad n'-- \quad v'-- \quad J 1755, U 1763, K 1773, A 1775, S 1775. \\
D & \quad n'-- \quad v'-- \quad F 1763, B 1774, W 1775, S 1780, W 1791.
\end{align*}$

(Sherman: One of the few paroxytones to become diatonic.)

(10) $bombard$ (ME noun; 1560 verb).

$\begin{align*}
P & \quad n'-- \quad v'-- \quad M 1617, F 1763. \\
O & \quad n'-- \quad v'-- \quad B 1700, L 1763, A 1775. \\
D & \quad n'-- \quad v'-- \quad J 1755, U 1763, B 1774, N 1784, W 1791.
\end{align*}$

(Sherman: This denominal pair first followed the paroxytone stress of the noun, then shifted to an oxytone, and concurrently established diatonic status.)

As shown earlier, in less than forty years since Sherman (1975), 11.2% and 51.9% of the $O$ and $D$ Romance loans, respectively, have acquired new $P$ stress in AmE. In these three examples, the gaps between entry and the earliest pronunciation coding (here, as $P$) were about 50 to 130 years long (not counting the broad ME entry date, which will bring in an even bigger gap); certainly prior changes could have taken place before the earliest coding. In
other words, $O \rightarrow P$ had already been completed before the first coding.

All the Romance loans in this paper end in heavy syllables and thus ought to have been Final-Stressed to begin with. This can be verified by some early pronunciations taken from Fikkert (2002: 328): $\text{sus'pect}$ (n.-1300; v.-1483), $\text{con'tract}$ (n.-1315; v.-1530), $\text{pro'spect / pro'specte}$ (n.-1430; v.-1555). All those pairs were Final-Stressed even with a noun entry status; they did not adapt to the OE ‘noun-Initial, verbs-Final’ stress pattern right after entry, though they subsequently became diatones. Svensson and Hering (2014) also point out that following the Norman Conquest, the majority of the old prefixes and prefixed noun/verb pairs were lost and replaced by French loans with oxytone on both nouns and verbs.

Among the 252 N-V pairs under the 12 prefixes studied, there are 22 pairs ending in heavy syllables and entering with a noun status that still remain oxytonic to this day, viz: $\text{alarm}$, $\text{appeal}$, $\text{assault}$, $\text{command}$, $\text{conceit}$, $\text{debate}$, $\text{delay}$, $\text{demand}$, $\text{disgust}$, $\text{dissent}$, $\text{distaste}$, $\text{distress}$, $\text{distrust}$, $\text{esteem}$, $\text{expense}$, $\text{receipt}$, $\text{reprieve}$, $\text{request}$, $\text{resort}$, $\text{respect}$, $\text{respond}$, and $\text{review}$.

Most of the various stress patterns under each category (e.g. D: DOP, DPO ...) in Table 3 ought to be representing grossly concurrent overlaps (i.e. variants) rather than chronological developments, which apparently are what Sherman reckons. Here, mini case studies on $\text{presage}$ (prefixed) and $\text{finance}$ (non-prefixed) may shed some light on the issue concerned (Table 4).

Table 4. Stress Patterns of $\text{Presage}$ and $\text{Finance}$ in Early and Contemporary Dictionaries: No Consolidation

| $\text{Presage}$ (noun - 14th C; verb - 1526) | $\text{Merriam-Webster}$: n. $P \sim O$ / v. $P \sim O$ |
| Sherman (1975: 64): | $\text{American Heritage}$: n. $P$ / v. $O \sim P$ |
| $P$ (n. $P$ / v. $P$) 1700–1744 | $\text{Cambridge}$: -- / v. $P \sim O$ |
| $O$ (n. $O$ / v. $O$) 1735–1786 | $\text{Collins English}$: n. $P$ / v. $P \sim O$ |
| $D$ (n. $P$ / v. $O$) 1775–1791 | (Sherman: Burns [1786] has both the paroxytone and oxytone noun …) |

| $\text{Finance}$ (noun –1739; verb –1866) | $\text{Compact Oxford English Dictionary}$ [BrE] |
| Both n. and v.: | $\text{Collins English}$ [BrE] |
| $P$ — Sherman’s paper (not in O or D list; hence, a presumed $P$) | $\text{Merriam-Webster}$ [AmE] |
| — $\text{Cambridge}$ [BrE] | $\text{American Heritage}$ [AmE] |
| $O \sim P$ — $\text{Compact Oxford English Dictionary}$ [BrE] | $\text{Webster’s New World College Dictionary (2010)}$ [AmE] |
| $\text{Collins English}$ [BrE] | $\text{Merriam-Webster}$ [AmE] |
The entry dates for *presage* were 14th C and 1526 for the noun and verb, respectively. The earliest coding of pronunciation was the year 1700, which was 300+ years after the first entry. By then, change from O to P ought to have been largely accomplished in the speech of many (hence the P coding), but not yet in the speech of others (hence the O and D). In other words, the different codings were results of arbitrary selections of prescriptive dictionaries. That both P and O stresses are recorded for the verb in all four major contemporary dictionaries and for the noun in *Merriam-Webster* indicates that the P stress is still prominent in the verb and the O stress still lingers on in the noun. Thus, contrary to Sherman’s conclusion, though more than two centuries have passed since 1775–1791, there is still no consolidating at D.

On the other hand, *finance* (n. and v.), which is presumably a P in Sherman’s records, still has an equally prominent O stress in most major dictionaries.

In some cases, more concrete time frames can be found. In 1826 Walker discussed first-syllable stressing of the noun *ally*, and in 1917 Jones commented on the ‘rapid’ spreading of this. Yet, in *Merriam-Webster*, both P and O stresses are given for both the noun and the verb. Thus, 180+ years (from 1826 till now) have passed and the noun form of *ally* still has yet to complete its change from an O to a P (see Appendix, Table A-1); in the meantime, the verb form has started to change in the same direction.

Jespersen (1954: 175) listed 136 (including the 6 given in parentheses) samples of diatonic Romance words and pointed out that 17 had lost the stress distinction (e.g. *ambush, triumph*) and 5 were starting to lose it (e.g. *comment, sojourn*). However, under scrutiny, another 49 of the 136 words have shown prior changes or instability (viz: *aspect, commerce, compact, complot, confine, congress, consort, consult, contest, contrast, conserve, convoy, costume, decrease, detail, discount, essay, excerpt, ferment, import, impulse, incense, increase, indent, levant, object, outrage, perfect, perfume, permit, portent, prelude, presage, present, proceed, produce, progress, project, purport, rampage, recess, record, reprint, reset, retail, subject, sur-tax, survey, turmoil*). Altogether, that is 52.2% (71/136) of the words in Jespersen’s records that show instability.

In a dictionary compilation, a measure of arbitrariness is perhaps inevitable; often different dictionaries at different times chose to acknowledge different variants. As pointed out by Svensson (1997), even though Johnson (1755) and his contemporaries, e.g. Nares (1784) and Walker (1826), pointed to the stress distinction between nouns and verbs, they gave the great
majority of both nouns and verbs in these doublets with the stress on the last syllable.

Such dismissals of ‘lesser’ pronunciations, taken at face value, may later lead to interpretation of concurrent overlaps as chronological developments. The two examples below indicate that this is exactly what Sherman (1975: 64, 66) has done.

(11) \textit{permit} (1538 verb; 1714 noun).
\begin{verbatim}
O  n '-'  v '-'  D 1735, B 1736, P 1753, F 1763, K 1773,
     A 1775, J 1775, S 1775, W 1775.
\end{verbatim}
\begin{verbatim}
P  n '--' v '--' J 1755, U 1763.
\end{verbatim}
\begin{verbatim}
D  n '--' v '-' B 1774, S 1780, N 1784, B 1786, W 1791.
\end{verbatim}
(Sherman: Johnson seems to have undergone extreme confusion with regard to \textit{permit}, starting with a paroxytone in 1755, then a [misprinted?] reverse accent pattern in 1756, and a more predictable oxytone by 1775. Walker [1775] to [1791] probably mirrors the transition to the diatone.)

(12) \textit{regress} (ME noun; 1552 verb).
\begin{verbatim}
P  n '--' B 1700, B 1735, P 1753, W 1775, S 1780,
     W 1791.
\end{verbatim}
\begin{verbatim}
P  v '--' D 1735.
\end{verbatim}
\begin{verbatim}
O  n '-' L 1706, F 1763, B 1774.
\end{verbatim}
\begin{verbatim}
O  n '-' v '-' J 1755, U 1763, A 1775, B 1786.
\end{verbatim}
\begin{verbatim}
D  n '--' v '-' K 1773.
\end{verbatim}
(Sherman: No other entry has the exuberant confusion of \textit{regress}.)

### 3.2. On Sherman’s Diatones Reverting to Isotonic Status

Sherman (1975: 55) maintains:

“... if a diatone reverts to isotonic status ..., the reversion occurs to the paroxytone rather than the oxytone pair. Examples of this are \textit{exile}, \textit{outlaw}, and \textit{prelude} (only \textit{cement} has reverted to oxytonic form). Considering the strong force of analogy exerted by the fact that more than half of all N-V pairs are paroxytones, it is remarkable that so few diatones revert to isotonic status and it is not surprising that the reversion is to the paroxytone form.”

Table 5 lists Sherman’s four examples of \textit{D} reverting to \textit{P}. 

Table 5. On Sherman’s Four Examples of ‘Reversion’

| Word     | Form | Date       | M-W Cambridge | Stress patterns in Sherman’s records | Progression |
|----------|------|------------|---------------|---------------------------------------|-------------|
| outlaw   | n.   | before 12th C | 1             | D: 1570–1786 P: 1700, 1791            | D: OE ‘n.-Initial, v.-Final’ pattern. The Germanic root-initial stress rule dictates an earlier O. P: ‘O → D → P’ thus completed. |
| exile    | n.   | 14th C     | 1             | P: n. 1570–1753 D: 1700–1791 P: 1756–1784 | n.: O → P completed before 1570*. v.: O in 1700, change to P started from 1756, now completed. |
| exile    | v.   | 1561 / 1655 | 1             | O: 1570–1786 D: 1700, 1791 (P after 1830) | Completion of ‘O → D → P’ rather than ‘reverting to P’. |
| prelude  | n.   | 14th C     | 2, 1          | D: 1700–1791 O: B1735, B1736 P: D1735* | D encloses periods of O and P. AmE: 2, 1 - still in competition; BrE: 2 - reverting to O. |
| cement   | n.   | 14th C     | 2             |                               |             |
|          | v.   |             |               |                               |             |

*In the gap of 170+ years between entry and first coding, the noun of exile might have largely completed the ‘O → D → P’ process; Barclay’s note (Sherman 1975: 61) captures the residual O stress in the noun.

| exile (14th C) | Barclay (1774) |
|----------------|----------------|
|                | ‘formerly’     |
|                | ‘by Dryden’ (1631–1700) |
|                | ‘now’ 1774     |
| n.             | O , P          |
| v.             | O               |

*On the P stage of cement, Sherman (1975: 58) notes: ‘Bailey [1735 and 1736] has both oxytone and diatone accentuations.’ Hence, an isotonic P as in Dyche [1735] never existed. On the other hand, Dresher and Lahiri (2003: 6): ME siment had initial stress until the 19th C.

The prefixed outlaw has a Germanic origin; in the earliest dictionaries, it started out with the OE ‘noun-Initial, verbs-Final’ pattern. However, the Germanic root-initial stress rule dictates an earlier O pattern. (Although ‘Germanic stem-initial stress rule’ may be a more common term, this paper
follows the terminology of ‘root + derivational affix(es) = stem’.) Thus, the entire routing ought to have been ‘O → D → P’.

Exile has at least a 170-year gap between entry and first coding; hence, it is very probable that there had been prior changes. Sherman himself (1975: 61) says, “This word shows the difficulties of establishing a diatone based on a preceding paroxytone …”. Actually, Barclay’s (1774) note captures the residual O stress in the noun and reveals an ‘O → D → P’ routing.

Prelude has late entry dates, 1561 (n.) and 1655 (v.); hence, its Romance O patterns were preserved in the dictionaries of 1570 ~ 1786 before changes started to take place. The process of ‘O → D → P’ was thus well documented.

Cement has a D coding that encloses periods of O and P. On its P stage as of 1735, Sherman (1975: 58) notes “Bailey [1735 and 1736] has both oxytone and diatone accentuations.” Hence, an isotonic P, as in Dyche (1735), never existed. However, Dresher and Lahiri (2003: 6) reports that ME siment had initial stress until the 19th C. Such conflicting patterns exemplify the arbitrariness of early dictionaries. In BrE, it has reverted to isotonic O; in AmE, both its noun and verb have O/P two patterns.

The Romance exile and prelude (and even the Germanic outlaw) exhibit ‘(O) → D → P’ changes. There was no reversion to P evidenced in these words but Sherman’s assumption that diatone is the ultimate state and changes away from a diatone must be ‘reversions’.

3.3. Establishing a One-Origin Theory of Diatone Formation: ‘O → D → P’

Sherman (1975: 55) declares that the 950 paroxytones ‘have not undergone any shift to diatonic status, nor are they likely to’. Tables 1 and 2 above (and many of the tables on the 12 prefixes below) provide living examples of ‘O → D or P’ and ‘D → P’ changes since Sherman (1975); the alternative stress and the different patterns in different dictionaries indicate that these changes are still in progress. D is clearly a stepping stone between O and P.

Ending in a heavy syllable, those Romance loans must have undergone stress shifts to reach isotonic paroxytone. Sherman’s 950 isotonic paroxytones must have gone through a D stage, with possible alternative stresses on the noun and/or the verb, which had just escaped codification that started only in 1570, or such a D stage may have been short enough to have slipped through various encodings, or the early dictionaries, being prescriptive in nature, may have chosen a more prominent pronunciation and omit-
ted the other.

That much said, there also exists the possibility of straight adaptation, upon entry, to the already prevalent isotonic P pattern by some latecomers (e.g., *picnic*: 19th C, *taxi*: 20th C).

Those 18 seeming cases of changes from P to D (cf. Table 3) are actually reversals after reaching isotonic paroxytone in prescriptive dictionaries. (In reality, they could have been in a state of fluctuation.) It seems Sherman takes those residual P stresses as starting points and reversal changes as fresh developments and describes those cases as ‘D established on preceding P’.

Sherman (1975: 52) states,

“There are 950 paroxytones, compared to 215 oxytones within this isotonic group. Thus, it seems accurate to state that N-V paroxytones tend to resist stress-advancement which is required for the addition (or creation) of an oxytone member in order to establish a diatonic N-V pair.”

It is clear that Sherman envisages two origins for diatones:

‘Oxytone → Diatone’ (Sherman: “usual cases”),
‘Paroxytone → Diatone’ (Sherman: “unusual cases”).

The evidence in this paper points to a one-origin migration with paroxytone as the ultimate stage:

‘Oxytone → Diatone (with possible alternative stress for n. and/or v.) → Paroxytone’.

In sum, the 215 oxytones, 150 diatones, and 950 paroxytones discussed by Sherman roughly embody the three stages of this one-origin change.

4. Stress Patterns of Prefixed Disyllabic N-V Pairs in American and British English: Progress in Motion

This paper examines N-V pairs under 12 prefixes with current stress patterns in both AmE and BrE; 4 groups (*sur-*, *de-*, *pre-*, *pro-*) will be given in this section, with discussions, and 8 more (*a-*, *con-/com-*, *dis-*, *es-*, *ex-*, *in-/im-*, *per-*, *re-*) will be presented in the Appendix.

The samples under each prefix in this paper are (near-)complete. With the exception of two words, *decoy* and *recall*, which are included because they are in Sherman’s lists, all the other N-V pairs listed are of Romance origin.

Words with new (sole or alternative) P stresses since Sherman (1975) are marked with the symbol ‘♦’. A tabulation of stress patterns in both AmE
and BrE brings out the dynamics in the stress shifts.

### 4.1. N-V Pairs under Prefix *sur-*

#### Table 6. Stress Patterns of N-V Pairs under Prefix *sur-*

| Words          | Merriam-Webster | Cambridge |
|----------------|-----------------|-----------|
| surcharge*     | n. .... P 1     | P 1       |
| surface        | v.              |           |
| surmise*       | n. .... 2, 1    | 2         |
| v.             |                 |           |
| survey*        | n. .... 1, 2    | D 1       |
| v.             | 2, 1            | 2, 1      |
| surprise       | n. .... O 2     | O 2       |
| surround       | v.              |           |

*3/6 words contain new P stress since Sherman (1975).

*Surmise: O in Sherman’s lists. *SOED* (2007) records an O, *Collins* (2003) records ‘verb-O, noun-O/P’, *Cambridge*, a P. A process of ‘O → D → P’ is thus exemplified within temporal proximity.

The word *surcharge* has progressed from D to P in both AmE and BrE since Sherman (1975). *Surmise* is in Sherman’s O list, yet it has progressed to a D in AmE and a P in BrE (according to *Cambridge*). In BrE, the records in *SOED* (2007), *Collins English* (2003), and *Cambridge* exhibit an ‘O → D → P’ evolution. (The chronological discrepancy of 4 years between *SOED* and *Collins English* is insignificant, as some dictionaries are more prescriptive or descriptive than others.) On *surmise* and *survey*, BrE has moved a bit faster.

Three of six words contain new P stress. If *surcharge* and *surmise* could have progressed from D or O to P in a few decades, *surface* (which is not in Sherman’s O or D list) is an apparent predecessor that must have gone through the same route before 1570.
### 4.2. N-V Pairs under Prefix *de-*

#### Table 7. Stress Patterns of N-V Pairs under Prefix *de-*

| Words               | n. v.  | Merriam-Webster | Cambridge |
|---------------------|--------|-----------------|-----------|
| detail*             | n. v.  | 2, 1            | P: 1      |
| decoy† decrease*   | n. v.  | 1, 2            | D: n: 1 v: 2 |
| defect              | n. v.  | 1, 2            | D: n: 1 v: 2 |
| default†            | n. v.  | 2, 1            | O: 2      |
| decline† defile     | n. v.  | 2, 1            | O: 2      |
| debate debauch*     | n. v.  | 2               | O: 2      |
| decay decease*      | n. v.  | 2, 1            | O: 2      |
| defeat delay delight demand demean² | n. v.  | 2, 1            | O: 2      |
| demise* demur design desire despair devise* | n. v.  | 2, 1            | O: 2      |

*5/23 words contain new P stress since Sherman (1975).
*Noun or verb not listed in Cambridge; status in Collins English.
†Decoy: a Germanic word, included here because Sherman has it.
²Demean: noun not found in major AmE/BrE dictionaries; an O in Sherman’s.

Five of twenty-three words contain new P stress. While BrE seems to have moved faster than AmE in having an isotonic P, it has moved slower than AmE in having 3 O’s where AmE has D’s. Overall, words under this prefix are rather slow in their migration to P stress.
4.3. N-V Pairs under Prefix *pre-*

Table 8. Stress Patterns of N-V Pairs under Prefix *pre-*

| Words            | n. | v. | Merriam-Webster | Cambridge |
|------------------|----|----|-----------------|-----------|
| preface          | n. | v. | P               | P 1       |
| prelude          | n. | v. | P               | P 1       |
| pressure         | n. | v. | P               | P 1       |
| preview          | n. | v. | P               | P 1       |
| premise          | n. | v. | D               | D         |
| presage          | n. | v. | D               | D         |
| prefix           | n. | v. | D               | D         |
| present          | n. | v. | O               | O 2       |
| preserve         | n. | v. | O               | O 2       |

*4/9 words contain new P stress since Sherman (1975). *Noun not listed in Cambridge; status in Collins English.

The word *prelude* is a D in Sherman’s (1975) paper; but in both AmE and BrE, it has become a P. This is another living example of progression from (Romance O to) D to P. 3 of the 4 D’s have an optional P for the verbs in both AmE and BrE; they are marching towards isotonic P.

Four of nine words contain new P stress. *Preserve* is the only remaining isotonic O in both AmE and BrE.
4.4. N-V Pairs under Prefix *pro-*

Table 9. Stress Patterns of N-V Pairs under Prefix *pro-*

| Words*          | n. P | v. 1  | Merriam-Webster | Cambridge |
|-----------------|------|-------|-----------------|-----------|
| probate         |      |       | P               | P         |
| process         |      |       |                 | 1         |
| profile         |      |       |                 |           |
| profit          |      |       |                 |           |
| program         |      |       |                 |           |
| promise         |      |       |                 |           |
| proverb         |      |       |                 |           |
| prospect¹       | n.   |       |                 | n: 1      |
| v. 1, 2        |       |       |                 | v: 2      |
| prospect²      | n.   |       |                 |           |
| v. 1, 2        |       |       |                 |           |
| produce         | n.   |       |                 |           |
| v. 2           |       |       |                 |           |
| progress        |      |       |                 |           |
| project        |      |       |                 |           |

*Sherman has a sole O, *profane*, which does not have a noun entry in *Merriam-Webster* or *Cambridge*. It is thus excluded from this table of N-V pairs.

¹/12 word contains new alternative P stress since Sherman (1975).

¹*Prospect*: not in Sherman’s lists of D or O, and hence, a presumed P.

Sherman asserts that present-day isotonic paroxytones have not gone through a diatonic stage. The word *prospect* is not in his list of D or O, and hence, we can presume that it is a P. But this word not only had an earlier isotonic O pattern (*pro'spect / pro'specte*, Fikkert (2002: 328)) but the O stress in the verb still lingers on as an alternative stress in current AmE, though the word has become isotonic P in BrE. This provides another piece of evidence of isotonic P having gone through a D stage (with possible alternative stress in n. and/or v.).

Words under this prefix have been moving fast; 7 are P pairs and 5 are D pairs.

4.5. Quantifying the Progressions of Stress Shifts in American English

Table 10a summarizes the stress patterns of the 252 N-V Pairs under 12 prefixes in American English.
Table 10a. Summary of Stress Patterns in 252 N-V Pairs under 12 Prefixes in American English

| Prefix | a- | con- | de- | dis- | es- | ex- | in- | im- | per- | pre- | pro- | re- | sur- | Total |
|--------|----|------|-----|------|-----|-----|-----|-----|------|------|------|-----|------|-------|
| No. of pairs | 26 | 37 | 23 | 24 | 7 | 13 | 15 | 4 | 9 | 12 | 76 | 6 | 252 |

Paroxytone

| no. | 7 | 25 | 7 | 8 | 2 | 6 | 15 | 4 | 4 | 5 | 31 | 2 | 116 |
|-----|---|----|---|---|---|---|-----|---|---|---|----|---|-----|
| %   | 26.9 | 67.6 | 30.4 | 33.3 | 28.6 | 46.2 | 100 | 100 | 44.4 | 41.7 | 40.8 | 33.3 | 46.0% |
| D+p | 1 | 11 | 0 | 3 | 2 | 4 | 6 | 1 | 2 | 2 | 4 | 0 | 36 |
| D+p+o | 4 | 1 | 1 | 1 | 2 | 0 | 2 | 1 | 1 | 1 | 0 | 3 | 1 | 20 |
| D+o | 2 | 11 | 0 | 0 | 0 | 6 | 1 | 1 | 3 | 12 | 0 | 36 |
| D-o | 0 | 2 | 3 | 3 | 0 | 0 | 2 | 1 | 0 | 12 | 1 | 24 |

Oxytone

| no. | 19 | 7 | 16 | 15 | 5 | 5 | 0 | 0 | 1 | 0 | 43 | 2 | 113 |
|-----|----|---|----|-----|---|---|---|---|---|---|----|---|-----|
| %   | 73.1 | 18.9 | 69.6 | 62.5 | 71.4 | 41.7 | -- | -- | 12.5 | -- | 76.8 | 33.3 | 44.8% |

New P readings*

| no. | 5/26 | 10/37 | 5/23 | 7/24 | 2/7 | 7/13 | 7/15 | 1/4 | 4/9 | 1/12 | 13/76 | 3/6 | 65/252 |
|-----|------|------|------|------|-----|------|------|-----|-----|------|-------|-----|-------|
| %   | 19.2 | 27 | 21.7 | 29.2 | 28.6 | 53.8 | 46.7 | 25 | 44.4 | 8.3 | 17.1 | 50 | 25.8% |

*New P readings:*

| *Diatone with possible alternative stress:* D+p: verb is O/P; D+p+o: both noun and verb are O/P; D+o: noun is O/P.

Svensson (2004) maintains that the majority of prefixed disyllabic noun-verb pairs are still stressed on the final syllable. Here, 44.8% (113/252) of the pairs are oxytones, which certainly do not constitute a ‘majority’ in this corpus.

9.1% (23 pairs) are paroxytones. The speed of progression to the P stress varies to a great extent between words under the same prefix as well as between different prefixes (e.g. 0% to 58.3% of P pairs here). 46.0% (116 pairs) are diatones; 48.3% (56/116) of the diatones have an alternative P stress for the verbs. 25.8% (65/252) of the N-V pairs have new paroxytonic stresses since Sherman (1975).

Put another way, 55.2% (139/252) of the nouns have P stress (with or without a lingering O) and 31.3% (79/252) of the verbs have sole or alternative P stress (Table 10b).
Table 10b. Progressions of Stress Shifts among the 252 N-V Pairs in American English

| Stress   | P          | P ~ O            | O          |
|----------|------------|------------------|------------|
| Noun     | 95 (37.7%) | 44 (17.5%)       | 113 (44.8%)|
| Verb     | 23 (9.1%)  | 56 (22.2%)       | 173 (68.7%)|

5. Phonotactics and Stress Shifts: Secondary Stress, First Syllable Coda, [-t/d] Ending

Table 11 examines possible effects of Secondary Stress (with reference to vowel reduction) on Primary Stress shifts in -ment suffixed N-V pairs.

Table 11. Stress Pattern in American English in Reference to Secondary Stress on -ment Syllables in N-V Pairs*

| Merriam-Webster | Noun | Verb |
|-----------------|------|------|
|                 | Stress pattern | Stress pattern |
| comment         | +    | P    | +    | P    |
| garment         | -    | P    | -    | P    |
| pigment         | -    | P    | + / - | P |
| fragment        | -    | P    | +    | P    |
| segment         | -    | P    | +    | P    |
| torment**       | +    | P    | +    | O / P|
| cement          | +    | O / P| +    | O / P|
| ferment*        | +    | P / O| +    | O    |
| lament          | +    | O    | +    | O    |

*Secondary Stress: +, with vowel [ε]; -, with vowel [ə].
**In Sherman’s data, torment: O for v.; ferment: P for n.
*All trisyllabic words (complement, document, implement, instrument, ornament, and supplement) are Initial-Stressed. The -ment syllables have + and – [Secondary Stress] for the verbs and the nouns, respectively.

The tabulation clearly shows that whether or not there is a Secondary Stress on the -ment suffix, both the noun and the verb can be stressed either initially or finally; hence, Secondary Stress is non-consequential to the
placement of Primary Stress in the 9 disyllabic words. It is also irrelevant in the case of trisyllabic pairs (as given in a note in the table).

There are two other phonotactic features to look into. On present-day diatonic N-V pairs, Baker and Smith (1976: 21) and Poldauf (1984) notice that they often have a coda in the first syllable (or, S1 coda) and Minkova (1997: 161) notices that there is often a final [-t/d] in Romance loans.

Sonderegger (2010) thinks that Phillips’ (1984, 2006) figures of word frequency as a factor for stress shifts in N-V pairs are not statistically significant. He thus combines frequency and structural variables (S1 coda and final [-t/d]) in a ‘logistic regression’ model and compares the stress changes from O to D in words under 17 prefixes from Boyer (1700) to Sherman (1975). He concludes that considered in isolation, the effects of individual input variables are largely insignificant; however, “more robust effects” may be seen in tests with combined inputs.

If these two phonotactic features do facilitate an $O \rightarrow D$ change (i.e. change in nouns), they ought to facilitate a $D \rightarrow P$ change (i.e. change in verbs) as well.

Table 12 presents both individual and cross-sectional analyses of the two phonotactic features in the 252 pairs examined. Analyses are made on speeds of stress shifts as measured by a point system: On the rationale that Romance loans ending in heavy syllables would be Final-Stressed upon entry (cf. Fikkert’s examples in Section 3.1), current stresses ‘P, D, O’ are given ‘1, 0.5, 0’ points, respectively. Diatones with alternative stress in noun and/or verb are simply counted as D.
Table 12. Progression Speeds on Stress Shifts in N-V Pairs in Relation to Features [First Syllable Coda] and [-t/d Ending] in American English

| [First syllable coda] | +[-t/d ending] | −[-t/d ending] | +/- [First syllable coda] Total* |
|------------------------|----------------|---------------|---------------------------------|
|                        | No. of pairs   | Progression   | No. of pairs   | Progression   | Points* and % | Points* and % | Points* and % |
|                        | P: 1 D: 0.5 O: 0 |                | P: 1 D: 0.5 O: 0 |                |               |               |               |
| con/m-                 | 3              | 18            | 12/25          | 48%            | 2              | 7             | 3              | 5.5/12        | 45.8%         |
| dis-                   | 0              | 4             | 5              | 2/9            | 1              | 4             | 10            | 3/15          | 20%           |
| ex-                    | 0              | 1             | 2              | 0.5/3          | 0              | 1             | 3              | 0.5/4          | 12.5%         |
| ex-                    | 1              | 6             | 0              | 4/7            | 1              | 0             | 5              | 1/6           | 16.7%         |
| im/n-                  | 0              | 9             | 0              | 4.5/9          | 0              | 6             | 0              | 3/6           | 50%           |
| per-                   | 0              | 3             | 0              | 1.5/3          | 0              | 1             | 0              | 0.5/1          | 50%           |
| sur-                   | 0              | 0             | 1              | 0/1            | 2              | 2             | 1              | 3/5           | 60%           |
| Sub-Total              | 4              | 41            | 12             | 24.5/57        | 43%            | 6              | 21             | 22            | 16.5/49        | 33.7%         |

|                        | 57             |               | 106            |               | 38.7%         |               |               |               |               |               |
| a-                     | 0              | 1             | 10             | 0.5/11        | 4.5%          | 0              | 6             | 9             | 3/15          | 20%           |
| de-                    | 0              | 2             | 4              | 1/6           | 16.7%         | 0              | 5             | 12            | 2.5/17        | 14.7%         |
| pre-                   | 1              | 1             | 0              | 1.5/2         | 75%           | 3              | 3             | 1             | 4.5/7         | 64.3%         |
| pro-                   | 2              | 3             | 0              | 3.5/5         | 70%           | 5              | 2             | 0             | 6/7           | 85.7%         |
| re-                    | 0              | 5             | 25             | 2.5/30        | 8.3%          | 2              | 26            | 18            | 17.5/46       | 38%           |
| Sub-Total              | 3              | 12            | 39             | 9/54          | 16.7%         | 10             | 42            | 40            | 33.5/92       | 36.4%         |

| +/-[-t/d] Total*       | 7              | 53            | 51             | 33.5/111      | 30.1%         | 16             | 63            | 62            | 50/141        | 35.5%         |

* This paper recognizes an 'O → D → P' migration route. Progression speed of an N-V pair is measured by a point system; P: 1 point; D: 0.5 point; O: 0 point.
- Diatones with optional stress in noun and/or verb are counted as D, 0.5 point.
*Total points divided by total number of N-V pairs.

Statistics in Table 12 reveal the following:

1. On the assumption that +[-t/d] pairs have more Initial-Stresses: −[-t/d] pairs have a slightly higher P stress rate (35.5% vs 30.1%).

2. On the assumption that +[S1 coda] pairs have more Initial-Stresses: +[S1 coda] pairs have a higher P stress rate (38.7% vs 29.1%). But on closer look, this only applies to +[-t/d] pairs: 43% vs 16.7%; with −[-t/d] pairs, it is the −[S1 coda] pairs that have slightly higher P stress rate, 36.4% vs 33.7%.

In conclusion, neither [S1 coda] nor [-t/d ending] shows any consistent effects on shift to initial stress. While the combination of the two features does show a higher P stress rate (43%), the internal range (0% to 57.1%) in
comparison to those of the other three sets (4.5% to 85.7%) denies the significance of even a combined effect of the two phonotactic features.¹

6. What Determines the Migration Path ‘O → D → P’ and a Hint of a Possible Factor Contributing to the Speed of the Shifts

6.1. Mechanisms of Stress Shifts – Diffusion of Germanic Stress Pattern in Romance Loans

Confronted with the OE ‘noun-Initial, verb-Final’ stress pattern, the nouns in the Romance N-V pairs began to change first and diatones were thus formed. With time, the Germanic ‘root-initial’ stress rule prevailed and the verbs in non-prefixed N-V pairs started to become stressed initially; then, verbs in the prefixed N-V pairs began to follow suit.

Sweet (1892: 284, §882 ff) points out the analogy of the native stress as well as the spread of the stress (i.e. lexical diffusion):

¹ Statistical t-tests of the data in the table below (Table 12 rearranged) indicate that neither feature makes significant difference in reference to the content of paroxytonic stresses in the populations:

| + [-t/d] | – [-t/d] | + [S₁ coda] | – [S₁ coda] |
|----------|----------|-------------|-------------|
| Population: 12 | Population: 12 | Population: 14 | Population: 10 |
| 48 | 45.8 | 48 | 4.5 |
| 22.2 | 20 | 22.2 | 16.7 |
| 16.7 | 12.5 | 16.7 | 75 |
| 57.1 | 16.7 | 57.1 | 70 |
| 50 | 50 | 50 | 8.3 |
| 50 | 50 | 50 | 20 |
| 0 | 60 | 0 | 14.7 |
| 4.5 | 20 | 45.8 | 64.3 |
| 16.7 | 14.7 | 20 | 85.7 |
| 75 | 64.3 | 12.5 | 38 |
| 70 | 85.7 | 16.7 | |
| 8.3 | 38 | 50 | |
| | | 50 | |
| | | 60 | |
“... already in ME many long words of French origin with the stress on the last syllable threw it back on to the first syllable by the analogy of the native stress ... In MnE this tendency has become stronger and stronger, so that the first-syllable stress in such words as honour, pity, emperor, justify, which in Late ME was only occasional, has now become fixed. Even in the present century many of these words have thrown back their stress to the first syllable, such as balcony, crystalline, recondite, which in the last century were stressed on their second syllables.”

Sweet’s examples above indicate that many simple nouns, verbs and adjectives had all been changing to Initial-Stressed. Here are more examples of heavy-syllable-ending words of Romance origin having (primary) stress shifting to the initial syllables:

nouns: basis, bonus, carpet, city, college, entry, ginger, helmet, hermit, idol, latent, lantern, mansion, movement, mucus, office, phantom, pigeon, termite, tribute, vampire, vengeance, verdict // arbiter, atmosphere, audience, century, chancellor, counselor, crocodile, cylinder, destiny, dialect, element, elephant, enemy, energy, fallacy, government, heritage, hierarchy, hospital, idiot, melody, privilege, residence, restaurant, sympathy, symphony, tendency // arbitrator, cemetery, ceremony, ostracism, territory, etc.

verbs: cater, ponder, enter, publish, punish, vanish // advertise, authorize, criticize, demonstrate, dominate, improvise, indicate, justify, modify, multiply, organize, qualify, reconcile, substitute, tantalize, vindicate, etc.

trisyllabic noun-verb forms: benefit, discipline, document, estimate, evidence, exercise, implement, institute, merchandise, monitor, remedy, sacrifice, etc.

adjectives: ample, final, finite, jealous, plural, pompous, stupid, tragic // courteous, curious, fortunate, generous, horrible, pivotal, popular, positive // arbitrary, ordinary, momentary, voluntary, transitory, etc.

adverbs: promptly, swiftly // actually, finally, suddenly, totally, instantly // courteously, dominantly, etc.

adjective-noun forms: ancient, comic, crystal, current, empire, legal, medley, modern, monster, period, polar, private, public, secret // capital, corporate, criminal, fugitive, funeral, infinite, legacy, prodigal, terminal, transient, etc.

adjective-verb forms: humble, lavish, etc.
adjective-adverb form: quarterly, gingerly, etc.
adjective-adverb-noun forms: bias, solid, etc.
adjective-noun-verb forms: paper, single, tender // alternate, dynamite, intimate, isolate, manifest, prostitute, ultimate, etc.

About four decades ago (about the time of Sherman’s 1975 paper), the present writer first encountered “We’ll move the witness to a hôtel” in a TV drama. That could be at an early stage of the change; now Merriam-Webster registers alternative initial stress for hotel, as well as for idea, locate, etc. Often a certain degree of emphasis is attached, which is a probable catalyst for the stress shift, for instance, “The idea is …”; “We must locate the child before sunset!” The verb frequent also has an alternative P stress in Merriam-Webster (with subsequent vowel reduction in the second syllable).

The diffusion of the Germanic stress pattern is across-the-board and ongoing; thus, the ‘O → D → P’ migration for N-V pairs is only natural, if not indeed inevitable.

6.2. A Hint of a Possible Factor Contributing to the Speed of the Shifts

Under the Germanic root-initial stress rule, non-prefixed N-V pairs, generally speaking, have their stresses shifted earlier; prefixed ones changed later. Therefore, the majority of the present diatones are prefixed words. A look into the non-prefixed pairs may reveal some clues on factors contributing to the speed of the shifts.

300 randomly selected samples (that is, all those that have come into sight or mind) of non-prefixed, non-compound isotonic paroxytones (mostly one-morpheme words, some are not, e.g. bankrupt, porter) of Romance origin are given, with entry dates, in Table 13a.
Table 13a. Samples of Current Non-prefixed, Non-compound Paroxytonic N-V Pairs of Romance Origin in American English with Earliest Entry Dates

*Entry date may be recorded in ‘year’ or ‘century’, and hence the different presentations below.
-Some of the words also function as adjectives and may have come in first as such. But only the entry dates of the noun and verb forms are compared.
*Words marked with ‘*’ are either early Latin loanwords in OE or Anglo-French loans with cognates in OE or other Germanic languages.

| I. Noun and verb appearing at the same time: |  |
|---|---|
| before 12th C | martyr* |
| 13th C | buffet¹ couple flower honor mantle trouble |
| 14th C | amble bargain border button buckle circle copy counter curtain damage diaper fable favor* hamper* harness* fortune gender glory gutter issue labor limit litter number pasture portion quarter season study title travel trifle warrant* |
| 15th C | audit mortgage muzzle notice picture scribble tally venture |
| 16th C | sally (1560) |
| 17th C | mottle² (1676) |
| 20th C | tango (1913) |

¹Buffet: ‘(to) strike’.
²Mottle: back-formation from motley of Romance origin.

| I. Total | 51 |

| II. Noun form appearing first: |
|---|
| Noun—before 12th C: all early Latin loans in OE; some ♥ reintroduced from Anglo-French |

| v. |  |
|---|---|
| 13th C | anchor** master** |
| 14th C | plaster* |
| 15th C | table** tower** pepper* (c. 1500) |
| 16th C | copper* (1530) potter* (1520s)¹ |
| 17th C | fever* (1601) pillow* (1629) |
| 19th C | candle* (1879) devil* (1800) ginger* (1849) meter** (1878) |

¹Potter: verb, 1829 in *Merriam-Webster*, unlikely; 1520s in *Online Etymology*, more likely.
### Noun—12th C:

| Time  | Word  | Count |
|-------|-------|-------|
| 14th C | prison  | 2     |
| 14th C | treasure | 2     |
| 15th C | offer* | 1     |
| 16th C | marble (1675) | 1     |

### Noun—13th C:

| Time  | Word  | Count |
|-------|-------|-------|
| 14th C | anguish  | 1     |
| 14th C | battle  | 1     |
| 14th C | color  | 1     |
| 14th C | counsel | 1     |
| 14th C | envy  | 1     |
| 14th C | fiddle* | 1     |
| 14th C | figure  | 1     |
| 14th C | image  | 1     |
| 14th C | journey | 1     |
| 14th C | levy  | 1     |
| 15th C | marvel  | 1     |
| 15th C | merchant | 1     |
| 15th C | measure* | 1     |
| 14th C | poison  | 1     |
| 14th C | ransom  | 1     |
| 15th C | riot  | 1     |
| 15th C | savor  | 1     |
| 15th C | tender | 1     |
| 16th C | charter | 1     |
| 16th C | pity | 1     |
| 16th C | reason | 1     |
| 16th C | story | 1     |

### Noun—14th C:

| Time  | Word  | Count |
|-------|-------|-------|
| 15th C | barrel | 1     |
| 15th C | channel | 1     |
| 15th C | fashion | 1     |
| 15th C | ferret | 1     |
| 15th C | forage | 1     |
| 15th C | garter | 1     |
| 15th C | license | 1     |
| 15th C | muster | 1     |
| 15th C | nurture | 1     |
| 15th C | panel | 1     |
| 15th C | pardon | 1     |
| 15th C | question | 1     |
| 18th C | sugar¹ | 1     |
| 18th C | value | 1     |
| 18th C | vomit | 1     |
| 18th C | voyage | 1     |

### Noun—15th C:

| Time  | Word  | Count |
|-------|-------|-------|
| 16th C | author (1596) | 1     |
| 16th C | bottle (1594) | 1     |
| 16th C | cabin (1586) | 1     |
| 16th C | center* (1590) | 1     |
| 16th C | closet (1595) | 1     |
| 16th C | captain (1598) | 1     |
| 16th C | flavor (1542) | 1     |
| 16th C | garment (1547) | 1     |
| 16th C | humor* (1588) | 1     |
| 16th C | kennel (1552) | 1     |
| 16th C | laurel (1631) | 1     |
| 16th C | merit (1526) | 1     |
| 16th C | mention (1530) | 1     |
| 16th C | message (1583) | 1     |
| 16th C | minute (1601) | 1     |
| 16th C | paper (1594) | 1     |
| 16th C | pattern (1586) | 1     |
| 16th C | pencil (1532) | 1     |
| 16th C | pillage (1592) | 1     |
| 16th C | pirate (1574) | 1     |
| 16th C | rumor (1594) | 1     |
| 16th C | second (1586) | 1     |
| 16th C | sentence (1592) | 1     |
| 16th C | triumph (1508) | 1     |
| 16th C | trumpet (1530) | 1     |
| 16th C | tutor (1592) | 1     |
| 17th C | angle (1621) | 1     |
| 17th C | barber (1606) | 1     |
| 17th C | blanket (1605) | 1     |
| 17th C | cotton (1605) | 1     |
| 17th C | hector (1660) | 1     |
| 17th C | metal (1617) | 1     |
| 17th C | motive (c.1650) | 1     |
| 17th C | pastor (1623) | 1     |
| 17th C | patent (1675) | 1     |
| 17th C | partner (1611) | 1     |
| 17th C | puncture (1699) | 1     |
| 17th C | sculpture (1645) | 1     |
| 17th C | soldier (1647) | 1     |
| 17th C | sucker (1607) | 1     |
| 17th C | tenant (1634) | 1     |
| 18th C | cushion (1738) | 1     |
| 18th C | doctor (1712) | 1     |
| 18th C | feature (1755) | 1     |
| 18th C | margin (1715) | 1     |
| 18th C | motion (1747) | 1     |
| 18th C | pension (1702) | 1     |
| 18th C | ribbon (1716) | 1     |
| 18th C | station (1742) | 1     |
| 18th C | vision (1743) | 1     |
### Direction of Stress Shifts in Noun-Verb Pairs and Progressions in American and British English

| Century | Examples |
|---------|----------|
| 19th C  | cycle (1842) schedule (1843; US) signal (1805) target* (1837) volume (1815) |
| 20th C  | fountain (1903) magic (1906) muscle (1913) party (1919) pigment (1900) sequence (1941) |

1. *Sugar*: from Anglo-French, Latin, Old Italian, Arabic, Persian, Sanskrit.

| Noun | 15th C |
|------|--------|
| v.   | banquet (c. 1500) candy (1533) culture (1510) emblem (1584) gesture (1542) lecture (1590) pocket (1589) |
| n.   | bid (1573) crimson¹ (1601) parent (1663) scissor (1611) scuttle (1642) |
| v.   | sample (1767) sanction (1778) |
| n.   | fragment (1818) jacket (1856) mushroom (1893) orphan (1814) symbol (1832) |
| n.   | jury (1947) orbit (1943) summit (1972) |

1. *Crimson*: from Old Spanish, from Arabic.

| Noun | from 16th C onward (dates: n./v.) |
|------|----------------------------------|
| v.   | auction (1595/1798) bandage (1599/1774) bankrupt (1533/1588) bias (1530/c. 1628) capture (c.1542/1574) caution (1566/1683) censor (1526/1882) climax (c.1550/1835) echo (1595/1596) equal (1573/1590) filter* (1563/1576) function (1533/1856) item (1561/1601) mandate¹ (1501/1919) medal (1578/1979) mission (1530/1692) model (1575/1625) motor (1586/1896) option (1593/1926) pilot (1530/1649) posture (c. 1586/c.1645) rapture (1594/1637) rival (1577/1605) section (1534/1819) segment (1570/1859) tariff (1592/1828) tension (1533/1891) texture (1578/1694) ticket (1529/1611) torture* (1540/1588) tunnel (1508/1795) total (1557/1716) vacuum (1550/1922) |
| n.   | caption (1670/1848) focus (1664/1775) halo (1603/1801) major (1616/1913) mentor (1616/1976) query (1635/1654) salvage (1645/1889) solo (1695/1886) sponsor (1651/1869) |
| v.   | panic (1708/1827) ration (1711/1859) |
| n.   | picnic* (1826/1842) photo² (1860/1868) stampede* (1828/1838) |
| n.   | taxi (1907/1911) |

1. *Sugar*: from Anglo-French, Latin, Old Italian, Arabic, Persian, Sanskrit.

1. *Crimson*: from Old Spanish, from Arabic.
**Mandate** is a prefixed word in the source language but not in English.

\[2\] *Photo*: back-formation from Greek *photo*-

### II. Total

|        |         |       |
|--------|---------|-------|
|        |         | 216   |

### III. Verb form appearing first: (date: for n. or n./v.)

|        |         |       |
|--------|---------|-------|
| **12th C** |        |       |
| temper* (14th C) |         | 1     |
| **13th C** |        |       |
| challenge | cover | double order | powder solace | 8     |
| n. flatter* (1714) | visit (1621) |       |       |
| **14th C** |        |       |
| ambush | fancy | practice triple |         | 12    |
| n. blemish (1535) | cancel (1806) | finish (1779) |       |       |
| n. flourish (c. 1552) | garnish* (1596) | polish (1671) |       |       |
| rifle (1635) | tremble (1609) |       |       |
| **15th C** |        |       |
| gallop (1523) | mangle (1696) | tarnish* (1684) | 3     |
| **16th C** |        |       |
| clutter (1649/1556) | credit (1537/c.1530) |         |       |
| gargle (1629/1527) | rummage* (1598/1582) |         |       |
| traffic (1549/1540) |       |       |
| **17th C** |        |       |
| rally (1651/1603) | quibble (1664/1656) |         | 3     |
| scamp* (1697/1685) |       |       |
| **18th C** |        |       |
| edit1 (1955/1791) |         | 1     |

\[1\] *Edit*: back-formation from *editor* of Romance origin.

### III. Total

|         |       |
|--------|-------|
|        | 33    |

### Grand total

|         | 300   |

On factors contributing to the speed of the stress shifts, Phillips (1984, 2006, etc.) has done extensive studies on word frequency. No other parameter, it seems, has been explored. However, word frequency as a factor, in particular, requires a closer scrutiny, as frequencies of the same words may differ to a great extent in different frequency corpora. On the other hand, among the 300 non-prefixied and non-compound N-V pairs in Table 13a, 51 (17%) had both nouns and verbs entering at the same time, 216 (72%) entered first as nouns, and 33 (11%) entered first as verbs. The noun-verb ratio \((216 + 33 = 249)\) is \(86.7\%\) vs \(13.3\%\). Entry status certainly is a possible contender, if not a more likely one, not to mention the historical linkage with the OE ‘noun-Initial, verb-Final’ stress pattern.
Table 13b. Summary of First Entry Dates of Randomly-Chosen Current Non-prefixed, Non-compound Paroxytonic N-V Pairs of Romance Origin in American English

| Entry Status Date | Same Noun | Verb | Total Date | Total |
|-------------------|-----------|------|------------|-------|
| 234 years since 1066 | 1         | 14   | 16         | 20    | 82 27.3% | 204 68% |
| Before 12th C     | --        | 4    | --         | 4     |          |
| 12th C            | 6         | 48   | 8          | 62    |          |
| 13th C            | 33        | 77   | 12         | 122   |          |
| 14th C            | 15th C    | 8    | 23         | 3     | 34       |
| Modern English    | 16th C    | 1    | 33         | 5     | 39       |
|                   | 17th C    | 1    | 11         | 3     | 15       |
|                   | 18th C    | --   | 2          | 1     | 3        |
|                   | 19th C    | --   | 3          | --    | 3        |
|                   | 20th C    | 1    | 1          | --    | 2        |
| Total             | 51        | 216  | 33         | 300   |          |

On entry time, the 14th C has the largest influx of Romance loans in this corpus.

Dresher and Lahiri (2003: 5–6) maintain that “More generally, bisyllabic Romance loans borrowed before the fifteenth century have initial stress in Present Day English…. By contrast, bisyllabic Romance loans with final stress in Present Day English tend to have been borrowed much later.” Statistics in Table 13b shows that 32% of those 300 pairs, which were borrowed as late as in Modern English period, now have initial, rather than final, stress.

Svensson (2004) asserts that early one-morpheme loans are stressed on the initial syllable. Considering the massive importation as starting from the Norman Conquest in 1066, only 27.3% of the 300 non-prefixed paroxytones in Table 13a entered in the first 234 years (1066—13th C; which ought to be a long enough ‘early’ period); 72.7% entered during or after the 14th C are also stressed initially.

To sum up, in finding factors for the speed of stress shifts in N-V pairs, word frequency, entry time, and entry status are all possible parameters and need to be examined using a large corpus.
7. Summary and Conclusions

Among the 215 oxytone pairs in Sherman’s paper, 11.2% (22/197) of the Romance loans have acquired a paroxytone stress in the nouns in American English (one of them is isotonic paroxytone; out of the remaining 21, 8 also have paroxytone as alternative stress for the verbs) and 4% (8/198; 3 are isotonic paroxytones) in British English. In American English, among the 150 diatonic pairs in Sherman’s paper, 51.9% (68/131) of the Romance loans have new paroxytone stress in the verbs. These recent changes in stress shift provide indisputable evidence against Sherman’s two-origin theory of diatone formation (‘oxytone → diatone’ and ‘paroxytone → diatone’) and reveal a one-origin migration path of ‘oxytone → diatone → paroxytone’, with possible alternative stress for the noun and/or the verb at the diatone stage. Diatone is a transient phase from historical point of view.

Such an on-going migration is clearly exemplified in the stress patterns of the 252 N-V pairs under the 12 prefixes examined here, in current American and British English.

Phonotactic structures (Secondary Stress; [first syllable coda] and [-t/d ending]) are irrelevant to stress shifts in N-V pairs, as shown by simple tabulation and statistical analyses.

Discussions on stress patterns of prefixed N-V pairs should take into consideration their Romance origin (hence the Final-Stressed pattern entailed by their heavy-syllable ending), the gaps (often hundreds of years) between entry dates and the earliest pronunciation coding (hence the probable prior changes), the prescriptive nature (that is, the arbitrary selection) of early dictionaries, as well as changes between diatones and paroxytones. As languages are constantly changing, in the face of many noticeable recent stress shifts in N-V pairs, investigators need to carry on from where Sherman stops. For instance, Both Phillips (1984, 2006) and Sonderegger (2010) dealt with ‘O → D’ changes only, while ‘D → P’ changes have been taking place on a large scale (cf. Table 2). Furthermore, experience in grassroots field work facilitates interpretation of historical data.

For possible factors attributing to the speed of stress shifts, word frequency, entry date, and entry status are all possible parameters that need to be tested and compared using a large corpus.
Appendix

Table A-1. Stress Patterns of N-V Pairs under Prefix \textit{a-}

| Words            | n. | v.   | Merriam-Webster | Cambridge |
|------------------|----|------|-----------------|-----------|
| annex*           | n. | v.   | 1               |           |
| address*         | n. | v.   | 1, 2            |           |
| alloy* ally*     | n. | v.   | 1, 2, 2, 1      |           |
| affix            | n. | v.   | n: 1            |           |
| affect           | n. | v.   | v: 2            |           |
| assay*           | n. | v.   | 1, 2            |           |
| abuse accord account advance affront alarm amount appeal approach assault assent assign array arrest attack attain attempt attire award | n. | v. | O | 2 |

*5/26 words contain new alternative P stress since Sherman (1975).
*Noun or verb not listed in \textit{Cambridge}; status in \textit{Collins English Dictionary}.
Table A-2. Stress Patterns of N-V Pairs under Prefix *com/con-*

| Words                     | n.  | v.  | Merriam-Webster | Cambridge |
|---------------------------|-----|-----|-----------------|-----------|
| comfort comment compass*  | n.  | v.  | P               | P         |
| compost                   |     |     | 1               | 1         |
| contour*                  |     |     |                 |           |
| contact                   | n.  | v.  |                 | P         |
| convoy*                   |     |     | 1               | 1, 2      |
| concrete*                 | n.  | v.  |                 |           |
| commune*                  | n.  | v.  |                 |           |
| confine                   | n.  | v.  | D               |           |
| content*                  |     |     |                 |           |
| combine^2                 | n.  | v.  |                 | D         |
| conflict*                 |     |     | n: 1            | n: 1      |
| compound*                 |     |     | v: 1            | v: 1, 2   |
| contract*                 | n.  | v.  |                 | v: 2      |
| concert                  | n.  | v.  |                 |           |
| compact                  | n.  | v.  |                 |           |
| comport                  | n.  | v.  |                 |           |
| compress                 | n.  | v.  |                 |           |
| conscript                 | n.  | v.  |                 |           |
| conserve                 | n.  | v.  |                 |           |
| construct                | n.  | v.  |                 |           |
| converse                  | n.  | v.  |                 |           |
| convict                  | n.  | v.  |                 |           |
| conceit*                  | n.  | v.  | O               | O         |
| concern                  |     |     | 2               | 2         |
| command                  |     |     |                 |           |
| commute                  |     |     |                 |           |
| compare                  |     |     |                 |           |
| consent                  |     |     |                 |           |
| control                  |     |     |                 |           |

*10/37 words contain new alternative P stress since Sherman (1975).
*Noun or verb not listed in *Cambridge*; status in *Collins English*.
*Comport: British English noun not listed in major dictionaries.
^1Content (n.), O: ‘to one’s heart’s content’.
^2Combine (v.), P: ‘harvest with a combine’.
Table A-3. Stress Patterns of N-V Pairs under Prefix *dis-*

| Words          | n.    | v.    | Merriam-Webster | Cambridge |
|----------------|-------|-------|-----------------|-----------|
| distance       | n.    | v.    | P               | P         |
|                |       |       | 1               | 1         |
| *discord       | n.    | v.    | 1               | n: 1      |
|                |       |       | 1 , 2           | v: 2      |
| *discourse     | n.    | v.    | 1 , 2           | D         |
|                |       |       | 2 , 1           |           |
| discharge      | n.    | v.    | n: 2 , 1        |           |
| dispute        | n.    | v.    | D               | 2 , 1     |
| discard        | n.    | v.    | 1               |           |
|                |       |       | 2 , 1           |           |
| dislike        | n.    | v.    | 2               |           |
| dispatch       | n.    | v.    | 2               |           |
| disdain        | n.    | v.    | 2               |           |
| disease        | n.    | v.    | 2               |           |
| disguise       | n.    | v.    | 2               |           |
| disgrace       | n.    | v.    | 2               |           |
| disgust        | n.    | v.    | 2               |           |
| dismay         | n.    | v.    | 2               |           |
| dismount       | n.    | v.    | 2               |           |
| display        | n.    | v.    | 2               |           |
| dispraise      | n.    | v.    | 2               |           |
| dissent        | n.    | v.    | 2               |           |
| dissolve       | n.    | v.    | 2               |           |
| distaste       | n.    | v.    | 2               |           |
| distress       | n.    | v.    | 2               |           |
| distrust       | n.    | v.    | 2               |           |
| disuse         | n.    | v.    | 2               |           |
| *7/24 words contain new alternative P stress since Sherman (1975). |
| *Noun or verb not listed in Cambridge; status in Collins English. |
| *Not listed in major BrE dictionaries. |

Table A-4. Stress Patterns of N-V Pairs under Prefix *es-*

| Words          | n.    | v.    | Merriam-Webster | Cambridge |
|----------------|-------|-------|-----------------|-----------|
| essay          | n.    | v.    | D               | D         |
| escort         | n.    | v.    | 1               | 1         |
|                |       |       | 2 , 1           |           |
| escape         | n.    | v.    | O               | O         |
| escheat        | n.    | v.    | 2               |           |
| essoin         | n.    | v.    | 2               |           |
| estate         | n.    | v.    | 2               |           |
| esteem         | n.    | v.    | 2               |           |
| *2/7 words contain new alternative P stress since Sherman (1975). |
| *Essoin: word not found in major BrE dictionaries; noun not listed in Merriam-Webster; status in Webster's New World College Dictionary; an O by Sherman. |
| *Estate: verb not found in major AmE and BrE dictionaries; an O by Sherman. |
### Table A-5. Stress Patterns of N-V Pairs under Prefix *ex-*

| Words                        | n. v. | Merriam-Webster | Cambridge |
|------------------------------|-------|-----------------|-----------|
| exile* exit                  | n. v. | P 1             | P 1       |
| excerpt* excise* export* extract* | n. v. | 1, 2            | n: 1 v: 2 |
| exploit*                     | n. v. | D 1, 2          | D 2, 1    |
| exchange*                    | n. v. | 2, 1            | O 2       |
| excuse exempt* exhaunt expense* | n. v. | O 2             |           |

*7/13 words contain new (alternative) P stress since Sherman (1975). *Noun or verb not listed in Cambridge; status in Collins English.

### Table A-6. Stress Patterns of N-V Pairs under Prefix *in-/im-*

| Words                        | n. v. | Merriam-Webster | Cambridge |
|------------------------------|-------|-----------------|-----------|
| infix*                       | n. v. | n: 1 v: 1, 2    | 1*        |
| incense*1 inset*2v           | n. v. | 1               |           |
| inlay*2v import* imprint*    | n. v. | 1, 2            |           |
| increase*                    | n. v. | 1, 2            |           |
| incline impact insert insult invert* | n. v. | 1, 2          |           |
| invite*                       | n. v. | 2               |           |
| impress*2                       | n. v. | 1, 2            |           |
| indent                       | n. v. | 2, 1            |           |

*7/15 words contain new (alternative) P stress since Sherman (1975). *Noun or verb not listed in Cambridge; status in Collins English. 1*Incense (v.) - P: to perfume with incense; O: to infuriate.
### Table A-7. Stress Patterns of N-V Pairs under Prefix *per*-  

| Words   | n. | v. | Merriam-Webster | Cambridge |
|---------|----|----|-----------------|-----------|
| perfume* | n. |    | 1               | P         |
|         |    | v. | 2 , 1           | 1         |
| perfect | n. |    | 1               | D         |
|         |    | v. | 1 , 2           | D         |
| pervert | n. |    | 1               |           |
|         |    | v. | 2               |           |
| permit  | n. |    | 1 , 2           |           |
|         |    | v. | 2               |           |

*1/4 words contain new alternative P stress since Sherman (1975).

### Table A-8. Stress Patterns of N-V Pairs under Prefix *re*-  

| Words   | n. | v. | Merriam-Webster | Cambridge |
|---------|----|----|-----------------|-----------|
| render* | n. |    | P               | p         |
|         |    | v. | 1               |           |
| rescue  | n. |    |                 |           |
|         |    | v. |                 |           |
| retail* | n. |    |                 |           |
|         |    | v. |                 |           |
| relay*  | n. |    |                 |           |
|         |    | v. |                 |           |
| rebate** | n. |    |                 |           |
|         |    | v. |                 |           |
| refund* | n. |    |                 |           |
|         |    | v. |                 |           |
| rebound* | n. |    |                 |           |
|         |    | v. |                 |           |
| recess** | n. |    |                 |           |
|         |    | v. |                 |           |
| research* | n. |    |                 |           |
|         |    | v. |                 |           |
13/76 words contain new (alternative) P stress since Sherman (1975).
Noun or verb not listed in Cambridge; status in Collins English.
Noun not listed in Merriam-Webster; status in American Heritage.
Not listed in major BrE dictionaries.
Rebus: verb- ♦, noun- ♠; it is an O in Sherman’s lists.

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[received December 5, 2013, revised and accepted July 23, 2014]

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