**Aims**

An intriguing stress behaviour — three types:
- Verbal: V /01/ and N /01/ e.g. control ± 60%  
  - Alternating: V /01/ and N /01/ e.g. record ± 50%  
  - Nominal: V /10/ and N /10/ e.g. access ± 10%

but no definite account of their distribution.

The aim of this poster is to test out the role of frequency and vowel quality (full versus reduced).

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**Context / previous study: verbs stress behaviour**

<table>
<thead>
<tr>
<th></th>
<th>V /10/</th>
<th>V /01/</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>mbr</td>
<td>117</td>
<td>74%</td>
<td>88</td>
</tr>
<tr>
<td>nmb</td>
<td>245</td>
<td>85%</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>1182</td>
<td>47%</td>
<td>1362</td>
</tr>
</tbody>
</table>

- prefixed verbs are mainly in /10/ (93%)
- non prefixed verbs are mainly in /01/ (85%)

Morphological structure is indeed the key factor of stress assignment

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**Source corpus: LLL Database**

LLL Database of the pronunciation of lexical units in Southern British English, General American English and Australian English, based on three reference dictionaries:
- Longman Pronunciation Dictionary  
- Cambridge English Pronouncing Dictionary  
- Macquarie Dictionary

For each entry, it contains its spelling, its pronunciations and stress patterns in the three varieties (including variants), its category/ies, its morphology, its meaning, its lexical status, and etymology information.

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**Verb/Noun pairs corpus**

- Historically prefixed pairs  
- COCA frequencies of Verb and Noun superior to 0.5 per 1 million
- Removal of unclear and/or heterogeneous cases:
  - Mixed frequencies (homonyms): abstract, second...  
  - Semantically separable structures: dislike, supreme...  
  - Mixed category status of the first element: bypass, download...

Final corpus: 186 disyllabic prefixed verb/noun pairs

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**Vowel quality and stress assignment**

Hypothesis: does a full vowel in the unstressed syllable imply an alternating type?

<table>
<thead>
<tr>
<th>Vowel Type</th>
<th>Alternating Type</th>
<th>Nominal Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>F: full vowel only - T: full vowel, reduced variant - R: reduced vowel, full variant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Alternating Type: the nouns seem to confirm the hypothesis, close to 100% have a full vowel in their unstressed syllable (85% with a full vowel only + 11% with a full vowel as first pronunciation).  
- BUT the verbs disprove the hypothesis: only 50% have a full vowel, of which 30% as a secondary variant only

Then, is the difference of full vowels proportion due to the difference of category: nouns would favour full unstressed vowels, and verbs reduced unstressed vowels?

The answer is no again: when both the noun and the verb have the same stress pattern (verbal and nominal stress types), their behaviour is strictly identical.

What the graphs show is actually a difference between the first and the second syllable: indeed the verbal type and verbs in the alternating type are stressed on their second syllable, while the nominal type and nouns in the alternating type are stressed on their first syllable. It seems to us that this difference is probably due to the morphological opposition between prefixes and roots.

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**Variation**

EPD and LPD consistency:
- EPD: 1 difference only, premise v. (reversed variants)
- LPD: 3 verbs, accent, detail, rebound

6 nouns, address, detail, recall, redress, research, resource (mostly reversed variants)

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**Frequency**

Distribution of stress types according to relative frequency (verb in mean)

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**Vowel quality and stress variants**

Hypothesis: does a full vowel in the unstressed syllable imply the existence of a stress variant?

\[
\begin{array}{ccc}
\text{Words with stress variant} & 10 & 10 \\
\text{All words} & 10 & 10 \\
\end{array}
\]

Here again, while the second syllable seems to support the idea, the first syllable dispenses it: 87% of the words with a stress variant in /10/ have a reduced vowel as main pronunciation, more than 50% of which as only pronunciation.

The difference between 1st and 2nd syllable has nothing to do with stress variants as confirms the “All words” graph, but with the difference between prefixes and roots, as observed above.

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**Further observations**

If the quality of the vowel does not determine stress behaviour in both these cases, we observe a similarity that calls for an explanation: the proportion of full vowels, whether as only pronunciation or as a variant, is higher in the alternating type than in the nominal and verbal types, and is also higher when there exists a stress variant than in the whole corpus.

It seems to us that, if the quality of the vowels is not a determining factor for stress, the reverse effect is what accounts for the phenomenon: the existence of a stressed counterpart favours the preservation of a full vowel in unstressed position.

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**References**


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**LLL work on verbs stress**


