

## **Testing Parameters for Stress Placement: The Case of Dissyllabic Prefixed Verb/Noun Pairs**

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Word stress assignment in English is both a long lasting and still open debate. Indeed, the parameters regulating English phonology are not always consensual. Some defend the importance of syllable weight (Chomsky & Halle, 1968), while others favour item frequency (Collie, 2007) or morphology (Fournier, 2007). Using a corpus of over 2,500 dissyllabic verbs, Descloux & al (2010) showed that 53% of these verbs are late stressed, and that 93% of these are prefixed. Prefixation is thus a decisive factor for stress placement in these words as they are never stressed on their prefixes. This behaviour is inherited from Old English (Fournier, 2007) and concerns not only verbs but all non-suffixed non-substantives (i.e. verbs, adjectives, adverbs and prepositions). However, nouns are not concerned by that rule.

A particularly interesting inventory to test different parameters is that of dissyllabic prefixed verb/noun pairs (e.g. *record*, *exit*, *concern*), for they can potentially follow either the verb pattern or the noun pattern. Several lists of these pairs can be found in the literature, and all show three possible stress behaviours:

- Verbal type: late stressed pairs (e.g. *disgust*, *expand*, *attack*) - 60%
- Nominal type: early stressed pairs (e.g. *access*, *comment*, *offer*) - 13%
- Alternating type: the verb is late stressed and the noun is early stressed (e.g. *record*, *addict*, *conflict*) - 27%

This study uses an updated list of 186 active verb/noun pairs established during a previous study (Abasq & al, 2012). The proportions given above are taken from the 2012 study. The following hypotheses are tested:

- The Frequency Hypothesis: Does relative frequency influence the stress behaviour of the pair? i.e. Does a more frequent verb imply a late stressed pair? And vice versa? Do alternating pairs have equivalent frequencies for the verb and the noun?
  - ➔ When the nominal type seems to confirm this hypothesis, the verbal type seems to be insensitive to frequency effects while the alternating type is more prominent when verbal frequency is higher.
- The Historical Hypothesis: Does the earlier appearance of the verb imply a verbal stress pattern for the noun as well? And vice versa? Does a simultaneous appearance imply an alternating stress behaviour?
  - ➔ Once again, the nominal type seems to confirm the hypothesis, but not the two others.
- Segmental Hypotheses:
  - Final Syllable Weight Hypothesis: Is there a relationship between the weight of the final syllable (vowel and/or consonant weight) and the stress type of the pair? i.e. The heavier, the more chances to have a verbal type.
    - ➔ When we find lighter syllables in nominal type pairs, the two other types present the same syllable structures in similar proportions.
  - Medial Consonant Clusters Hypothesis: Guierre (1990) claimed that medial consonant clusters can help identify a morphological boundary when they cannot be found in simplex words. Does the presence of consonant clusters non-attested in simplex words help noticing prefixation and therefore induce a verbal type?
    - ➔ We do not find any such clusters in nominal type pairs, but they can be found in both other types.
  - Vowel Reduction Hypothesis: Does the presence of a reduced vowel in the first syllable imply a verbal type? Does the presence of a reduced vowel in the second

syllable imply a nominal type? Does the presence of full vowels in both syllables imply an alternating type?

- The study refutes this hypothesis, for even though it seems to be valid for the verbal type, it is not the case for the two others: alternating verbs present a lot of reduction on their first syllable and about half of the nominal type pairs have unreduced second vowels.

This study led us to formulate two hypothesis based on two observations:

- Morphological Hypothesis: we observe that vowel reduction is considerably higher on the prefixes than on the bases and thus that all different morphological units may not be equal with regards to reduction, i.e. prefixes tend to reduce more than bases.
- Vowel Preservation Hypothesis: we observe that vowels tend to reduce less in the alternating type, which leads us to think that it is the existence of a full vowel in the co-member of the pair which reduces the chances of vowel reduction for that same vowel in the other co-member of the pair.

These two hypotheses will need to be tested on larger corpora in further studies.

### Selected References

- ABASQ, V., DABOUIS, Q., DESCLOUX, E., FOURNIER, J.-M., FOURNIER, P., GIRARD, I., MARTIN, M., VANHOUTTE, S. 2012. "Multicategorical Prefixed Words Stress Behaviour: Variation and Frequency", communication realised at the third international PAC conference (Phonology of Contemporary English) at the University of Toulouse II-Le Mirail (29<sup>th</sup> February-2<sup>nd</sup> March).
- ABASQ, V., DABOUIS, Q., DESCLOUX, E., FOURNIER, J.-M., FOURNIER, P., GIRARD, I., MARTIN, M., VANHOUTTE, S. 2012. "Stress in Dissyllabic Verb/Noun Pairs", Poster presented at the 20<sup>th</sup> MFM (Manchester Phonology Meeting) at the University of Manchester (25-27<sup>th</sup> May).
- CHOMSKY, N. & HALLE, M. 1968. *The Sound Pattern of English*, Cambridge, Massachusetts, London, England: The MIT Press.
- COLLIE, S. 2007. *English stress-preservation and Stratal Optimality Theory*. PhD thesis, University of Edinburgh, Edinburgh. Available as ROA-965-0408, Rutgers Optimality Archive, <http://roa.rutgers.edu>.
- DESCHAMPS, A. 2000. "La logique des variants accentuelles de l'anglais. *Points d'interrogation Phonétique et Phonologie de l'Anglais*. Proceedings of the December Conference on Oral English. CELDA. Université de Pau et des pays de l'Adour.
- DESCLOUX, E., GIRARD, I., FOURNIER, J.-M., FOURNIER, P., MARTIN, M. 2010. "Structure, Variation, Usage & Corpora: The Case of Word Stress Assignment in Dissyllabic Verbs". Communication pronounced at the 2010 PAC Workshop in Montpellier, France (September 2010).
- FOURNIER, J.-M. 2007. "From a Latin syllable-driven stress system to a Romance vs Germanic morphology-driven dynamics", *Language Sciences* 29, 218-236, London: Elsevier.
- FOURNIER, J.-M. 2010. *Manuel d'anglais oral*. Paris : Ophrys.
- GUIERRE, L. 1979. *Essai sur l'accentuation en anglais contemporain – Eléments pour une synthèse*, Paris, Université Paris-VII.
- GUIERRE, L. 1982. "Grammaire et lexique en phonologie : Les oppositions accentuelles catégorielles", 1er colloque d'avril sur l'anglais oral, J.-L. Duchet, J.-M. Fournier, J. Humbley & P. Larreya, éd., Université de Paris-Nord : CELDA, diffusion APLV.
- GUIERRE, L. 1990. "Conflits internes et externes en phonétique de l'anglais", *5ème Colloque d'Avril sur l'anglais oral*, 45-75, Villetaneuse : Université Paris-Nord, CELDA, diffusion APLV.

KIPARSKY, P. 1982. "From Cyclic to Lexical Phonology," in H. van der Hulst and N. Smith, eds., *The Structure of Phonological Representations*. Part I, Foris, Dordrecht, 131-176.