Asymmetries in the language system
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Based on data from Dutch, we investigate asymmetries in the language system. The general theoretical idea behind this is that an overarching 'linguistic contrast principle' is somehow operative. In syntax, the basic operation Merge is asymmetrical in the sense that one of the sisters projects categorially. Likewise, morphologically complex items are standardly endocentric or headed at each level of the configuration. In phonology, OCP effects on linearly adjacent elements are well-known, which lead to an alternation of features.

What is less well studied is the conception that there may be even more abstract *vertical* contrasts in linguistic hierarchies. We will first address stress assignment in Dutch, and demonstrate that the prosodic hierarchy shows an interesting, perfect alternation between levels, as indicated in (1):

(1)   Phonological phrase (φ) :   head-final
       Compound (Com)   :   head-initial
       Prosodic word (ω)   :   head-final
       Foot (Σ)   :   head-initial
       Syllable (σ)   :   head-final
       Rhyme   :   head-initial

The illustrations below corroborate this pattern: (2) concerns the headedness of feet, prosodic words, and compounds combined; (3) adds the phrasal level.

(2)

e- lek- tró- nen- mi- cros- cò- pen   'electron microscopes'

(3)

èiken- houten húís- deur   'oak [wooden] front door'

The headedness at each subsequent level evidently has a linear effect on the distribution of stress. One may wonder what happens if the consequences of the 'vertical OCP' clashes with the familiar horizontal one, which (in this case) would e.g. prohibit adjacent strong syllables. The result is usually an optional stress shift, cf. *fiftèèn lóve* → *fífteen lóve* in English. Similarly, eurithmic effects can be caused at higher levels, e.g. *bìjstands-ùìtkerings-geréchtigde* → *bìjstands-uitkèrings-geréchtigde* 'receiver of social assistance benefit'.

In syntax, endocentricity has a long history. While the internal workings of the syntactic module are based on hierarchical notions, the resulting structure is related to linear order at the PF-interface. When we evaluate a Kaynian antisymmetric structure with respect to the linguistic contrast principle, we note that it is in perfect agreement with the 'vertical OCP' (compare (1)).

(4)

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                    XP                              ...
           /‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾\
     UP_spec             X'                    right-projecting
                   /‾‾‾‾‾‾‾‾‾‾‾\
                 X          YP_compl           left-projecting
                      /‾‾‾‾‾‾‾‾‾‾‾\
                 WP_spec          Y'           right-projecting
                            /‾‾‾‾‾\
                           Y    ZP_compl       left-projecting
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It remains to be seen, however, how the effects of the so-called Final-Over-Final-Constraint that has recently been under investigation (in a less rigid phrase structure), or the older Head Final Filter can be reconciled with the contrast principle. As a first approximation, the HFF can be redefined as a horizontal OCP effect on category, explaining patterns such as in (6) in Dutch.

(5) * [$_{XP}$ [$_{YP}$ Y ... Z(P)] X] if Cat(Z) = Cat(X)

(6)   a.   de **man** is dol op **peren**   [the man is fond of pears]
        b.   de op **peren** dolle **man**   [the on pears fond man]
        c.   *   de dolle op **peren man**   [the fond of pears man]

Similarly, we may have an explanation for the effect that clausal objects are unexpectedly sentence-final in OV languages:

(7)   a.   Jan heeft geen woord gezegd (*geen woord).   [Jan has no word said]
        b.   Jan heeft (*dat hij **wegging**) **gezegd** dat hij **wegging**. [Jan has said that he left]

Notably, constructions like *een man met een hoed zien* [a man with a hat see] 'to see a man with a hat' show that a disharmonic final-over-initial configuration is innocent when we combine the nominal with the verbal domain.

All in all, we argue that the general linguistic contrast principle may be what is behind the phenomenon of headedness in linguistic hierarchies, and is ultimately responsible for various other vertical and horizontal asymmetries in the modules of the language system. It is clear that in concrete situations, there may be contradictory requirements; moreover, LCP effects interact with, and are often overruled by, other principles of the grammar. This results in the necessity for parametric choices and sometimes optionality that are reminiscent of optimality systems. We would like to discuss with the audience the issue of language variation, and possible ways to theoretically implement parametric variation.

Selected literature

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