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Abstract
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Lateralisation of structure and causality: the Coda Mirror

Since its early days, Government Phonology is a representationally oriented theory: structure exists independently of phonological processing and competition. It is altered by the computational component of the grammar. Both structure and processes fall into possible and impossible patterns: a monster Coda that contains, say, nine consonants is not an object that could exist in any human brain. In the same way, p → l / __k is not something that could ever be computed by a human, not even a little bit. Note that this is an absolute and non-gradual statement: monster-structures and monster-processes are not just unlikely to occur but could exist in principle; they are simply not part of this world, and grammar must not be able to generate them at all.

In this sense, phonological theory needs to define what precisely a possible structure/ event is, and what is not. The opposition structure vs. process is probably resident in all natural science: objects exist in nature independently of the processes that apply to them. Hence structure is a critical part of science and could not be interchangeable: in physics, an atom has property X, but not property Y; flipping around X and Y is impossible, and also the physical processes that apply to an atom could not possibly produce the same result with either X-Y and Y-X. In short, structure MUST exist in its own right; it is not emergent and follows from the computational part of the grammar in no way.

The recent OT literature voices an increasing discomfort with the fact that the role of representations in this theory, if any, is uncertain (e.g. Hall 2001, Clements 2001).

In this presentation, I would like to show an alternative to OT-based approaches to representations. That is, representations contribute to the definition of (a)grammaticality in their own right; their arbitral award can neither be overridden by the computational component, nor does it follow from it. In short, representations are sovereign. Looking at the centre of interest that CASTL promotes, an appropriate field of illustration appears to be lenition/ fortition, i.e. the bearing that the position of a segment in the linear string has on its melodic properties.

The core of the research programme of Government Phonology is the lateralisation of structure and causality. For example, the distribution of vowels and zeros in vowel-zero alternations (e.g. Polish woj**ø**n-a vs. woj**e**n, woj**e**n-ny "war NOMsg, GENpl, Adj.) is classically described as a function of the arboreal status of the [n] in the words at hand: if it pertains to a Coda (woj**e**n, woj**e**n-ny), the vowel appears; in case it belongs to an Onset (woj**ø**n-a), the zero is observed ("vocalisation occurs in closed, but not in open syllables"). The lateral interpretation of the same facts in Government Phonology attributes the alternation to an internuclear relation that does or does not hold between the Nucleus of the alternating vowel and its righthand peer. That is, the constituent structure of the words in question identifies as /woj**ø**na, wojen**ø**, wojen**ø**ny/; notice the presence of empty Nuclei in /wojen**ø**/ and /wojen**ø**ny/. The alternating vowel will be present, then, iff the following Nucleus is empty (/wojen**ø**, wojen**ø**ny/); it will be absent iff the following Nucleus is filled (/woj**ø**na/). That is, an internuclear domain may be headed only by a phonetically expressed Nucleus. Hence the alternation at hand does not depend on the vertical status of the [n] in the syllabic arborescence, but on the presence or the absence of a lateral relation.

In the same way, the Coda is not defined as a particular node in the syllabic tree. Rather, it enjoys a lateral identity: Coda-consonants occur before an empty Nucleus. Hence the [n] is a "Coda" in /wojen**ø**/ and /wojen**ø**ny/, but not in /woj**ø**na/.

Causality, in this approach, is also lateral. Everybody knows that consonants in Coda position are prone to lenition. Therefore, the Coda is said to be a weak constituent. But why should that be so? Is there a reason why the Coda is weak, rather than the Onset? Traditional approaches do not answer (or even raise) this question. In the model sketched, the weakness of Codas is predicted: they are followed by an empty Nucleus, of which we know independently that it cannot head lateral domains. Hence, the "Coda" is weak because it fails to receive support from its Nucleus. The Onset is not because its Nucleus is filled and thus can lend a helping hand.

Following this general outline of the theory, I show how lateralised representations can get a handle on what is known by Romanicists as the "Strong Position": consonants are shielded against lenition iff they occur either word-initially or after a heterosyllabic consonant. In SPE-type notation, this disjunctive context identifies as {#,C}__. Could it be an accident that the well-known Coda-context "word-finally or before a heterosyllabic consonant" __{#,C} is the exact mirror image thereof AND produces the reverse effect (i.e. weakness) ? This is why Ségéral & Scheer (2001) refer to the Strong Position as the Coda Mirror. Its definitorial disjunction {#,C}__ cannot be expressed by regular syllabic theory in a way that is 1) uniform (i.e. non-disjunctive), 2) unique (i.e. different from all other positions) and 3) positive (i.e. the Coda Mirror is not just the complementary set of "post-vocalic").

This, I argue, is strong evidence for the recognition of the phonological reality of additional empty Nuclei, and hence for the lateral character of syllable-related generalisations.

Syntacticians will probably be utterly puzzled by one of the consequences of this approach: there is no arboreal structure left at all, phonology is entirely flat. How could that be? I argue that the absence of a tree-building device in phonology is a (perhaps THE) fundamental difference between phonology and non-phonology. On Jackendoff's account where syntactic and phonological representations are constructed in parallel, phonology is something very different from just some narrow syntax that spells out terminal nodes. If syntax and phonology are two independent modules that communicate via some shuttles (and not top-down), there is nothing wrong with phonology lacking any tree-building mechanism. In any event, flat phonology provides an explanation for a long-observed fact: there is no recursion in phonology. Obviously, recursion supposes arboreal structure (node X must dominate itself): if phonology lacks trees, it could not possibly feature recursion.

References

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