Tobias Scheer
CNRS 6039, Université de Nice
Abstract pour le séminaire de l'UMR 7023 (Paris 8), 26 février 2007

How syntax and morphology talk to phonology

Since the 80s, the processing of non-phonological information in phonology has been dominated by two interface theories, Lexical Phonology and Prosodic Phonology. While the former is closely associated with stratal effects that rely on the existence of different affix classes, the latter translates phonologically relevant morpho-syntactic structure into a phonological arborescence that is known as the Prosodic Hierarchy. The Prosodic Hierarchy to date stands unchallenged and is the theory-resident default when phonologists make reference to extra-phonological information. This has not changed in constraint-based environments where prosodic constituency has been taken over with minor adaptations (e.g. Selkirk, 2000, Kiparsky, 2000, Bermúdez-Otero, forth).

I show that the Prosodic Hierarchy is as much a diacritic as classical SPE-type boundaries (#, +), if an autosegmental one. Everybody today agrees that diacritics are non-linguistic objects and hence cannot be part of linguistic theory. This line of argumentation has actually contributed to outlaw # and the like; I argue that the Prosodic Hierarchy must be abandoned for the same reason.

A crucial advance made by Prosodic Phonology is the principle known as Indirect Reference according to which phonology cannot directly access morpho-syntactic structure and hence may not mention morpho-syntactic categories in the structural description of rules (or in constraints). The critical argument for Indirect Reference which is repeated over and over in the literature is so-called non-isomorphism: the domain of the string which is phonologically relevant does not necessarily coincide with any morpho-syntactic constituent. Therefore, Prosodic Phonology argues, there must be a translating process whereby a Translator's Office – which is neither part of morpho-syntax nor of phonology, hence stands in modular no-man's land – maps morpho-syntactic onto prosodic structure. While the Translator's Office takes morpho-syntactic structure as an input, it modifies it according to its own standards – thereby making it non-isomorphic – before handing it over to phonology in the coat of the Prosodic Hierarchy.

I argue that Prosodic Phonology has reached exactly the right conclusion – but for the wrong reason: non-isomorphism is a mirage that is created by analysis, not by linguistic fact; it appears when one looks at the data through the prism imposed by domains, rather than boundaries. Non-isomorphism evaporates as soon as the same data are interpreted in terms of the latter. On the other hand, a good reason for the existence of the Translator's Office is modularity: different modules do not speak the same language (of the brain, e.g. Jackendoff, 1992 et passim), and hence can only communicate through a no-man's land-based translation.

If the Prosodic Hierarchy thus is a domain-created mirage and boundaries turn out to be the correct interface currency, we seem to be requesting a self-contradicting theory, i.e. one where extra-phonological information is represented as *non-diacritic boundaries*. I show that this term does not need to be self-contradictory: its paradoxical flavour stems from the fact that the two essential properties of what is commonly called a "boundary" have never been disentangled. That is, boundaries are 1) local and 2) diacritic. The former seems to imply the

latter – and this is exactly what I show to be wrong: there may well be non-diacritic boundaries. In other words, when boundaries were eliminated from phonological theory, the local baby was thrown out with the diacritic bath.

Hence I propose a theory where interface information is handed down locally – in the sense of what is traditionally called sandhi; yet the output of the Translator's Office are only truly phonological objects. A truly phonological object is one that exists in domestic phonology anyway and in absence of any interface-related issue. The result is Direct Interface, i.e. a theory where higher level information does not transit through a diacritic. A welcome effect of this is that different phonological theories, which of course have different domestic vocabulary, make different predictions as to what can be the output of the Translator's Office: only their domestic vocabulary is eligible. Therefore, Direct Interface allows for evaluating phonological theories according to their behaviour at the interface – a new perspective.

Bermúdez-Otero, Ricardo forth. Stratal Optimality Theory. Oxford: Oxford University Press.
Jackendoff, Ray 1997. The Architecture of the Language Faculty. Cambridge, Massachusetts: MIT Press.
Kiparsky, Paul 2000. Opacity and cyclicity. The Linguistic Review **17**, 351-365.
Selkirk, Elisabeth 2000. The interaction of constraints on prosodic phrasing. Prosody: Theory and Experiments, edited by Merle Horne, 231-261. Dordrecht: Kluwer.