Tobias Scheer Abstract for the Sound Patterns of Syntax conference Beer Sheva 11-13 June 2007

Phase Impenetrability vs. multiple computational systems

This talk inquires on the distribution of procedural (phase) and representational (classically #, the Prosodic Hierarchy) means of transmitting information to the phonology. On the procedural side, I show that Phase Impenetrability (formerly known as the Strict Cycle Condition) and selective rule application are direct competitors: they do the same job and hence cannot both be accommodated in the same theory. What I call selectve rule application is the idea that there are two distinct computational systems in the phonology: the set of rules that applies at level 1 in Lexical Phonology may be different from the set of rules that applies at level 2. By contrast, there is only one phonology in SPE: the same set of rules assesses all strings that are submitted for phonological interpretation. Selective rule application is the standard in OT because of the fundamental anti-derivational stance of this theory: a good deal of the OT interface literature is explicitly anti-cyclic, i.e. concerned with finding alternatives to cyclic (= procedural) spell-out. Facing classical stratal phenomena, the result are always multiple phonological computational systems: co-phonologies (implemented into distinct hierarchies) and indexed constraints (implemented into the same hierarchy). OTed versions of Lexical Phonology (DOT, Stratal OT), which accept serialism, also implement a version of selective rule application: two distinct constraint rankings are serially ordered. I show that Phase Impenetrability and selective rule application are mutually exclusive. Hence if it is true that the former is needed for purely syntactic purposes and in the interface with LF, selective rule application has to go. This result converges with the fact that selective rule application is highly suspicious on modular grounds: it is not clear what it means to have two distinct sub-modules in the phonological module.