

Phases and Linearization at the Syntax-Phonology Interface

This paper investigates the interface of syntax and phonology in a modular view of language, deriving the effects of (morpho)syntactic structure on prosody without referring to that structure in the phonological computation, *contra* the use of alignment constraints that map (morpho)syntactic edges to prosodic ones in Prosodic Phonology (Selkirk 1986, 1996, Truckenbrodt 1999 *inter alia*). It focuses on the effects of the Multiple Spell-Out Hypothesis (MSOH) (Uriagereka 1999, Chomsky 2000 *et seq.*), providing an explicit account of how the outputs of different phases get linearized with respect to each other. It argues phonological computation needs to proceed in phases in order to achieve domain mapping while maintaining an input to phonology consisting of purely phonological information.

The claim of the MSOH is that parts of the syntactic structure get spelled-out to the PF and LF component before the whole structure is computed. The internal structure of such chunks becomes inaccessible to the rest of the computation, giving rise to syntactic islands. As a consequence, the PF interface is claimed to also process these chunks separately, deriving prosodic domains without referring to syntactic structure, thus maintaining modularity (e.g. Kratzer and Selkirk 2007, Revithiadou and Spyropoulos 2009 for phrase-level, Marvin 2002, Newell 2008 for word-level).

This paper looks at data such as that from Kayardild, a case-stacking language, in (1) (prosodification is provided following Evans 1995 and Round 2009):

- (1) (maku-wa)_ω (yalawu-jarra)_ω (yakuri-na)_ω (dangka-karra-nguni-na)_ω (mijil-nguni-na)_ω
woman-NOM catch-PST fish-MABL man-GEN-INSTR-MABL net-INSTR-MABL
“The woman caught the fish with the man’s net.” (Evans 1995:115)

The different types of underlining indicate which part of the utterance gets spelled-out in which phase, in the view of Nissenbaum (2000), Svenonius (2001, 2004) and Newell (2008), according to which spell-out is not reserved for specific nodes in the tree, but happens as soon as all the features in a constituent are valued/checked, which makes that constituent interpretable at the interfaces. In a system in which these chunks are sent off to PF separately, the input to the phonological computation is:

- (2) /dangka-karra/ + /-nguni mijil-nguni/ + /yakuri-na -na -na/

This paper shows that, in a modular view of language, linearization algorithms (e.g. Kayne 1994, Fox and Pesetsky 2005) cannot produce the final utterance in (1) by linearising elements in (2). They are based on linearising syntactic nodes and constituents with respect to each other and crucially cannot instruct phonology on how to linearise the output of one phase with respect to the phonological string which was the output of the previous phase. The paper provides arguments that spell-out cannot proceed in chunks but in concentric circles, producing cumulative cyclic input to phonology:

- (3) Phase 1: /dangka-karra/
Phase 2: /dangka-karra-nguni mijil-nguni/
Phase 3: /yakuri-na dangka-karra-nguni-na mijil-nguni-na/

An analysis is provided deriving prosodic domains from phases by phonological computation being faithful to the prosodification output of the previous phase (Phase-Phase Faithfulness within the Optimality Theoretic computation), whereas access to the underlying forms is preserved by receiving them in the input. Languages such as Kayardild differ from languages where phases induce cyclic effects (e.g. Newell 2008) by ranking Phase-Phase faithfulness constraints lower than prosodic well-formedness constraints regulating e.g. binarity of prosodic constituents or their alignment to one another.

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