

Relational Properties in Phonology: Precedence and Dependency

Phonology is generally seen as standing apart from other linguistic components in that it alone requires the encoding of a relational property of precedence between objects in representations. Although individual theoretical positions do vary, there is general agreement that this property should be expressed at the skeletal level – i.e. that it holds between phonological positions (alternatively timing units, skeletal positions) (Kaye 1989, Hayes 1990, Harris 1994, Brockhaus 1995). In addition, the notion of precedence has also been employed in the description of complex segments such as affricates and prenasalised obstruents, where precedence relations are assumed to hold between melodic units like [\pm continuant] and [\pm nasal] (Sagey 1986). What this suggests is that, while precedence is of central concern to melodic structure, it has little relevance to the other major domain within phonology, prosodic structure.

In contrast, prosody, which refers to structural units above the skeleton, is represented via dependency relations holding between phonological categories such as onset, rhyme, foot and phonological word. Yet in fact, the term ‘dependency’ actually defines a more general structural property which is present in other components of the grammar too. And melodic structure is no exception: melody is also represented by means of dependency as well as precedence relations.

During the last decade, however, some researchers (Lombardi 1990, Takahashi 1993; Schafer 1995; Scobbie 1997, Nasukawa 1999, 2005) have argued that the precedence relations (i.e. timing differences) found in complex segments are simply a natural outcome of structural interpretation, rather than a phonologically encoded property. According to this view, phonology allows precedence relations to be encoded only by skeletal positions. Following this tendency, we need to provide a reason why this kind of special status is granted only to skeletal positions.

This paper will address this question by attempting to collapse the various types of relational properties found in linguistic representations into the single established notion of dependency. This leads us to exclude the property of precedence even from the melodic component of phonology. I will argue that precedence is merely the natural result of computing and interpreting the dependency relations which hold between units in a structure. An advantage of this approach is that the competence side of the language faculty (including melody) exhibits representational coherence throughout derivation before the level at which it interfaces with articulatory-perceptual facilities.

References

- Brockhaus, Wiebke G. (1995). Skeletal and suprasegmental structure within Government Phonology. In *Frontiers of Phonology: Atoms, Structures, Derivations*, Jacques Durand and Francis Katamba (eds.), 180-221. Harlow, Essex: Longman.
- Harris, John. (1994). *English Sound Structure*. Oxford: Blackwell.
- Hayes, Bruce. (1990). Diphthongisation and coindexing. *Phonology* 7: 31-71.
- Kaye, Jonathan D. (1989). *Phonology: A Cognitive View*. Hillsdale, NJ: Lawrence Erlbaum.
- Lombardi, Linda. (1990). The nonlinear organization of the affricates. *Natural Language and Linguistic Theory* 8: 375-425.
- Nasukawa, Kuniya. (1999). Prenasalisation and melodic complexity. *UCL Working Papers in Linguistics* 11: 207-224.
- Nasukawa, Kuniya (2005). *A Unified Approach to Nasality and Voicing*. Berlin/New York: Mouton de Gruyter.
- Sagey, Elizabeth. (1986). The representation of features and relations in non-linear phonology. Ph.D. dissertation, Massachusetts Institute of Technology.
- Scafer, Robins. (1995). Headedness in the representation of affricates. *The Linguistic Review* 12: 61-87.
- Scobbie, James M. (1997). *Autosegmental Representation in a Declarative Constraint-based Framework*. New York: Garland.
- Takahashi, Toyomi. (1993). 'Contour' in melodic structure. Ms. University College London.