

## *Chapter 6:* *Conclusions*

To conclude, I would like to review the major aspects of the theory of metrical representations and derivations developed in this thesis. I have attempted to develop and describe a discrete calculus that formally captures the fundamental insight of Liberman (1975) that stress is a reflection of the partitioning of sequences of linguistic elements into metrical constituents.

Following Prince (1983), I have suggested that Universal Grammar provides a special plane for metrical structure: the metrical grid. Following Halle & Vergnaud (1987), the grid consists of a number of parallel lines composed of marks and boundaries. However, in the present theory, a single parenthesis is sufficient to define a constituent. A left parenthesis groups material to its right as a constituent, and a right parenthesis groups material to its left.

I have proposed that the grid is a separate module of the phonology, and that there is a strict separation between the grid and the rest of the components of the phonology. The interface between the grid and the rest of the phonology is controlled by two parameters, whose operation is restricted to the projection of marks and boundaries. This can be extended in a natural way to other areas of prosodic phonology. In particular, the end-based theories of the syntax-phonology interface (for example Selkirk (1986)) involve the same sort of boundary projection as found in the line 0 interface.

This view is to be contrasted with theories such as Prince (1990) and Hayes (1991) which do not enforce modularity. Rather, they allow all principles of metrification to have direct access to aspects of syllable structure. Similarly, theories that require generalizations across both feet and syllables, like the Obligatory Branching parameter (Vergnaud & Halle (1978), Hayes (1980), Hammond (1984,1986)) also violate the modular separation of the grid from the syllable structure.

Within the grid, the projection of elements onto higher lines in the grid is strictly limited to the operation of the Head parameter. This framework therefore lacks the capability of increasing an element's prominence directly. As a consequence, any element with increased prominence must always be constituent-terminal.

The major innovation of the present theory is the Edge Marking Parameter. This simple device solves a number of puzzles in generative stress theory. For example, the differences in stress patterns between Koya and Khalkha are elegantly characterized by different settings of the Edge parameter. This represents an advance in our theorizing about stress since previous theories were able to characterize the stress pattern of languages like Khalkha only with the help of special ad hoc devices. In particular, parameters for higher level constituents were allowed to apply to lower level constituents, violating the Prosodic Hierarchy (McCarthy & Prince (1986)) and the Strict Layer Hypothesis (Selkirk (1986)).

The construction of iterative constituents deviates from the procedure in Halle & Vergnaud (1987) by being universally restricted to construct only full constituents. That is, the ICC cannot itself construct degenerate constituents. In conjunction with the Edge marking parameter this restriction derive the effects previously ascribed to Extrametricality.

Further, the Edge marking parameter provides the requisite formal power to deal with stress introduced by specific morphemes in such languages as Turkish, Macedonian, Polish, Russian, Cayuvava, Shuswap and Moses-Columbian.

The other major facet of this theory is the role played by constraints. Avoidance constraints are statements of universal or language-particular disfavored configurations. The constraints do not cause repair strategies to be invoked, rather they actively prevent the application of metrical rules. This interaction between rules and constraints allows for each component to be made maximally simple, and yet for the system to generate complex

results. Among the results achieved in this way is the derivation of a ternary parsing ability.

Finally, by eliminating many of the devices of Halle & Vergnaud (1987), especially the bookkeeping parentheses, many of the conditions imposed there can be dispensed with, including Faithfulness, Recoverability, Peripherality, Maximality and the Domino Condition.