

Geminates and Syllable Structure

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The central question this paper addresses is this: How are true or underived geminate consonants represented in syllable structure? Two main approaches have been advanced. (1) Geminates contribute to syllable weight: they are inherently heavy (moraic), with a single node on the length tier, here identified in terms of C and V units (e.g. Hayes 1989). (2) Geminates are inherently long, represented with CC nodes (e.g. Selkirk 1990). Our purpose in this paper is to bring together arguments against the inherent weight analysis and motivate the bipositional representation as the only universal property of geminates.

The syllabic weight analysis makes two crucial representational claims: (a) geminates are always mora-bearing (heavy), and (b) they are specified with a single unit on the length tier (short). We will adduce evidence that both claims are false. We will argue that geminates have an invariant structure, one that contains double units on the length tier and no inherent prosodic properties. We allow for the first C component of geminates to become heavy, if a weight-by-position rule (Hayes 1989), or constraint, specifies that codas in general are heavy in a particular language.

Argument 1: Geminates can be light in coda position. In Selkup stress falls on the rightmost heavy syllable (1a), or else on the initial syllable (1b). The latter form shows that medial CVC syllables are light; the same is true for CVG (G = geminate) syllables (1c). The analysis of the original Selkup data presented in Clements and Keyser (1983) received critical discussion, due to some missing information (see Tranel 1991; Davis 2002; Curtis 2003). We will present additional data from the Taz dialect of Selkup (Helimski 1998; p.c.) that nail down the argument that CVG syllables are light. Similar cases will be presented from Ngalakgan (Baker 1999).

Argument 2: Geminates can be light in onset position. Several representational possibilities will be discussed for word initial (onset) geminates. While heavy in Trukese (Davis 1999), in Leti initial geminates pattern as light (see 2). We will discuss a similar case in Thurgovian Swiss (Muller 2001; Kraehenmann 2003).

Argument 3: Geminates pattern with C-clusters. Under the weight analysis, geminates are expected to be grouped together with single consonants, since both single and geminate consonants have a single unit representation on the length tier, as opposed to consonant clusters, which have two or more units. On the other hand, the segmental length analysis makes geminates natural candidates to pattern together with consonant clusters. This is indeed the case in Hungarian, where C-initial suffixes are appended directly to verbal stems ending in a single C (3a); not so in the case of CC-final stems, which induce epenthesis (3b); so do G-final stems (3c). Similar cases will be discussed from Leti (Hume et al. 1997) and Cypriot Greek (Muller 2001).

Based on a more complete discussion, we conclude that the full range of evidence supports the position that the principal characteristic which distinguishes geminates from singletons is bipositionality (length). We will refute Davis's (2002) claim that two sets of facts from Sinhala are problematical for the bipositional analysis.

1. **Selkup stress (Clements and Keyser 1993)**
 - a. [qumo:qlilí:] ‘your two friends’
 - b. [ámɪrna] ‘eats’
 - c. [ú:cɪkkak] ‘I am working’
2. **Leti initial geminates (Hume, et al. 1997)**
 - a. Stress word initial heavy syllables: [má:norori] ‘crow’
 - b. If word initial syllable is light, stress penultimate syllable: [saméla] ‘mouse’
 - c. #CVC syllable is light: [matrúna] ‘master of the house’
 - d. #GV syllable is light: [ppunárta] ‘nest’s egg’
3. **Hungarian epenthesis (Vago 1992)**
 - a. No epenthesis after C-final verb stems: [üt] ‘hit,’ inf. [ütni]
 - b. Epenthesis after CC-final verb stems: [önt] ‘pour,’ inf. [önteni]
 - c. Epenthesis after G-final verb stems: [függ] ‘hang,’ inf. [fügeni]

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