CHAPTER 3

Formal Analysis of Vedic Medial Syllabification

3.0 Introduction

An analysis of medial syllabification in Vedic, in order to achieve explanatory adequacy, must account for the following generalizations established to hold for the language’s word-internal syllable structure:

(1) Generalizations about Vedic Medial Syllabification
   a. V.CV: Single intervocalic consonants are onsets.
   b. VC.CV: A sequence of two intervocalic consonants is treated heterosyllabically, i.e. as a sequence of coda + onset.
   c. VRO.RV, VRO.OV, VO.ORV: A sequence of three or more intervocalic consonants is treated first in accordance with generalization (1b.); the syllabic allegiance of the remaining intermediate consonant(s) is determined by the sonority sequencing principle and influenced by a dispreference for complex onsets which is stronger than that for superheavy syllables (or complex codas).
   d. Superheavy syllables are disfavored, but are actively and consistently prevented from surfacing only in the perfect conjugation.
   e. Segments are generally neither inserted nor deleted to improve syllabification.

With respect to the final generalization, we recognize one exception we must also account for. It is a case of epenthesis: the appearance of i peculiar to the perfect paradigm (referred to in (1d.)), which breaks up potential superheavy syllables and complex onsets, and allows for the syllabification of what would otherwise be unsyllabifiable sequences of consonants.2

1 A condensed version of the analysis developed here can be found in Cooper 2013a, and elaborated discussion on several theoretical points can be found in Cooper 2013c.
2 In the analysis developed here we abstract away from two other exceptions: the loss of s when between consonants (see 2.2.3 in the previous chapter), and svarabhakti, which can also be motivated by preferences of syllable structure (see the discussion in Kobayashi 2004: 35ff.).
In this chapter we develop an account of Vedic medial syllabification in the constraint-based framework of Optimality Theory (Prince and Smolensky 1993 [2004]). We will proceed as follows: in 3.1 we build an analysis of the general syllabification system in Vedic, as captured in the generalizations above, particularly (1a.–c.). We turn to syllabification in the perfect conjugation in 3.2, and address the question of how to incorporate the exceptional patterns observed in this domain within the overall system. We summarize the contours of our final analysis in 3.3.

Before moving on to 3.1, we first briefly introduce the constraints that will play a role in the general analysis. We begin with the set of relevant markedness constraints, presented in (2) according to their order of appearance in the discussion (with the exception of (2h.–i.), which are addressed below); all pertain to syllable well-formedness.

(2) Vedic Medial Syllable Structure Markedness Constraints
   a. ONSET
      Syllables have onsets.
   b. NOCODA
      Syllables may not have a coda.
   c. *COMPLEXONSET
      Syllables may not have more than one onset segment.
   d. SYLLABLE-CONTACT
      A syllable contact A.B is the more preferred, the higher the sonority of the offset A and the lower the sonority of the onset B.
   e. *3μ
      No trimoraic (superheavy) syllables.
   f. *COMPLEXCODA
      Syllables may not have more than one coda segment.
   g. SONORITY-SEQUENCING
      Complex onsets rise in sonority, and complex codas fall in sonority.3
   h. *APPENDIX
      No appendix (i.e. non-moraic coda) segments.
   i. *μ/CONSONANT
      Consonants must not be moraic.

These constraints are all well established in the literature; we will comment briefly on a few of them. First, we differentiate between two versions of the *COMPLEX constraint schema, *COMPLEXONSET (2c.) and *COMPLEXCODA

3 For a more technical definition, see n. 11 in Chapter 1.