On the role of sonority in the verb morphology of Tashlhiyt Berber

In Dell & Elmedlaoui (1985, 2002), it is argued that any segment in Tashlhiyt Berber can act as a syllable nucleus, including a voiceless obstruent, if it is the most sonorous segment in the syllabification domain. Evidence for this approach is provided with the imperfective formation: the authors argue that “the segment which is geminated in the imperfective stem is that segment which is syllabified as an onset by Core Syllabification in the basic stem” (Dell & Elmedlaoui 1988: 11). For instance, the monosyllabic kərz “plough” forms its imperfective as kəkrəz, while the bisyllabic lkm “arrive” leads to lkkəm (in both cases the consonant k appears in the onset position). Dell & Elmedlaoui’s analysis of geminated imperfective accounts for almost all the verbs, as far as they contain at least one sonorant in a non-initial position. However, the problem arises with verbs that are made entirely of obstruents such as bəg “swell”, bdən “be wet”, kəfərs “sow”, and verbs where the only sonorant is in the initial position like rəkə “dance”, rəqəs “jump” and nəgs “jostle”. Within Dell and Elmedlaoui’s syllable algorithm, in which any consonant, even a voiceless stop, may occur as nuclei, we expect these verbs to form their imperfective by means of gemination: for instance, monosyllabic bəg, bdən and kəfərs would geminate the initial consonant, while bisyllabic rəkə, rəqəs and nəgs would geminate the medial consonant (syllabic consonants are in bold; the period indicate the syllable boundary). Instead, they all undergo tt- prefixation, leading to ttbəzəg, ttbdən, ttkəfəs, ttərkəz, ttərqəs and ttəngəs, respectively. Dell & Elmedlaoui’s syllable-based analysis fails to explain why only verbs that contain at least one sonorant in a non-initial position undergo gemination in the imperfective.

An alternative approach is proposed here. The difference between verbs that undergo gemination and those that resist it is lies in the structure of the root rather than the syllable. It is proposed that all and only triconsonantal roots containing at least one sonorant in a non-initial position undergo gemination in the imperfective for they display an asymmetric binary-branching head-complement structure, rendered by means of a tree diagram analogous to those that represent syntactic or syllabic constituencies. The head appears immediately to the left of the most sonorous segment in the root. The data and the representations in (1) and (2) illustrate the proposal (the head is indicated by the dot at the end of the branch):

(1) √ Imperfective √ Imperfective
a. bsr bssr "spread" c. frg ffrg "enclose"
   zgr zggr "cross"     krf kkrf "tie"
   gzm gzzm "cut"    knd kknd "dupe"
b. ndr nddr "suffer" d. knu knuu "lean"
   lkm lkkəm "arrive"   gru grru "collect"
   rkm rkkəm "rot"        bri brri "scratch"

(2)