Three Challenges for Morphological Doubling Theory

Morphological Doubling Theory (MDT) (Inkelas and Zoll 2005) abandons the phonological copying approach inherent to most theories of reduplication and proposes instead that reduplication involves semantic (rather than phonological) identity between two (potentially identical) daughters in a compounding construction where both daughters and the construction itself have their own co-phonologies (1). Three theoretical and empirical areas, which should be accounted for by any morphological theory of reduplication, present a challenge for MDT: (i) reduplication in compounding contexts; (ii) phonological targets for reduplication; and (iii) morphological mora augmentation in reduplication contexts.

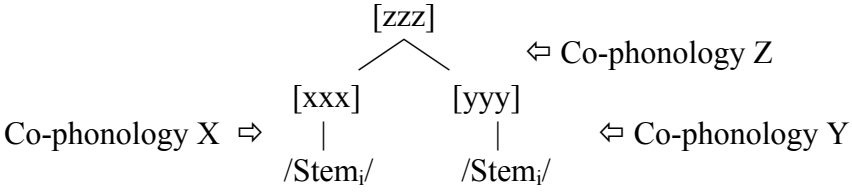
1. Reduplication and Compounding. Languages that reduplicate morphological compounds sometimes target a single member of the compound for the reduplication. In cases like those in Yaqui (2), MDT straightforwardly accounts for the semantic contribution of the "reduplicant" (daughter X), which is related to (takes scope over) the verb stem it attaches to (daughter Y) (e.g. *speak-speak-want* vs. *speak-want-want* in 2). However, Pima (3) poses a problem for this view, in that the reduplication of *either* (or *both*) of the nominal stems indicates plurality of the entire compound. In short, MDT would propose a semantic input along the lines of *salt-salt-tree* **or** *salt-tree-tree* **or** *salt-salt-tree-tree* for the plural of 'tamarack' in example (3), whereas the semantic contribution of the reduplication consistently involves simple quantification of the entire compound (and not 'salt', 'tree', etc.).

2. Phonological Targets. MDT crucially relies on the thesis of morphological targets: the idea that "a reduplication construction calls for morphological constituents (affix, root, stem, or word), and not phonological constituents (mora, syllable, foot)" (p. 25). However, cases of reduplication targeting phonological constituents are attested, including a disyllabic target in Yidin^{y} (Marantz 1982, McCarthy and Prince 1986) (4), a monosyllabic target in Mayo (Hagberg 1993) (5b), and other phonological targets documented in Shaw (2005).

3. Morphological Moras. MDT crucially distinguishes two types of morpho-phonological duplication: reduplication and phonological copying. Phonological copying is supposedly differentiable from reduplication because: it is not morphological; it is proximal (targeting the closest eligible element); it only copies one segment; it involves phonological identity (not semantic identity). MDT does not address at all the morphology of "morphological mora augmentation" (Davis 2001) (~ "mora affixation" in Samek-Lodovici 1992), which like phonological copying involves phonological identity between a proximal single segment, but which also serves a morphological purpose. For example, one expression of habituality in Yaqui is mora augmentation where a morphological mora surfaces differentially according to the shape of the stem it applies to: gemination in CV.CV- initial stems (e.g. *ma.ve.ta* > *ma**v.v**e.ta*) but vowel-lengthening in CVC.CV- initial stems (e.g. *yep.sa* > *y**ee**p.sa*, **yep.psa*) (Haugen 2003). Whereas MDT handles partial reduplication via truncation regulated by the co-phonology of only one of the daughters (e.g. X or Y in 1), infixal mora augmentation would be handled by a rule at the mother node (Co-phonology Z). Thus, MDT would posit two different mechanisms to handle the two phenomena. This non-unified approach faces an empirical challenge from Tawala, where mora augmentation (vowel-lengthening) only occurs in contexts where prefixal syllabic reduplication would otherwise result in three adjacent identical syllables (6a). Hicks Kennard's (2003) constraint-based analysis, which utilizes the *REPEAT constraint to penalize adjacent syllables in reduplicants (but not stems, because of MAX_{IO}>>*$\text{REPEAT}_{[\sigma]}$>>MAX_{BR}), also accounts for the unusual pattern of reduplication in (6b), where copying the second vowel of a stem's two vowel sequence is preferable to copying the first vowel, otherwise leading to the non-optimal repetition of identical adjacent syllables (thus, *bi-be.i.ha* and **be-be.i.ha*).

Data

(1) Schematic for Reduplication in Morphological Doubling Theory (Inkelas and Zoll 2005)



(2) Reduplication of V-V Compounds in Yaqui: RED w/ Scope Over Reduplicated Verb Only (Harley & Haugen 2008)

nok-ii'aa →	**no**-nok-ii'aa	nok-**ii**-ii'aa	**no**-nok-**ii**-ii'aa
speak-want	**RED**-speak-want	speak-**RED**-want	**RED**-speak-**RED**-want
'want to speak'	'want to be speaking'	'be wanting to speak'	'be wanting to be speaking'

(3) Reduplication of Noun-Noun Compounds in Pima (Munro & Riggle 2004)

'ònk-'ús →	**'ò**-'onk-'ús	~	'ònk-**'ú**-'us	~	**'ò**-'onk-**'ú**-'us
salt-tree	**RED**-salt-tree		salt-**RED**-tree		**RED**-salt-**RED**-tree
'tamarack'	'tamaracks'	~	'tamaracks'	~	'tamaracks'

(4) Reduplication in Yidin^y—Targeting a Foot for Reduplication (Marantz 1982)

a. [mu.la].ri	'initiated man'	>	**mu.la**.[mu.la].ri	***mu.lar**.mu.la.ri
b. [kin.tal].pa	'lizard sp.'	>	**kin.tal**.[kin.tal].pa	***kin.ta**.kin.tal.pa

(5) Variable Reduplication in Mayo: Different Bases for Copying (Hagberg 1993)

a. Class 1 Verbs: Reduplicant = $\sigma_{\mu\mu}$; Target = Entire Verb Stem

i.	[om.té]	**om**.[óm.te]	***o'**.['om.te]	'hate'
ii.	[no.ká]	**nok**.[nó.ka]	***non**.[no.ka]	'speak'

b. Class 2 Verbs: Reduplicant = $\sigma_{\mu\mu}$; **Target = 1st Syllable of Verb Stem Only**

i.	[wóm].te	**wóm**.[wom].te	***wów**.[wom].te	'be frightened'
ii.	[nó].ka	**nó**n.[no].ka	***nók**.[no].ka	'know a language'

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(6) Reduplication in Tawala—Identical Adjacent Syllables are Prohibited in RED (Hicks Kennard 2003)

a. *to.to.go*	'be sick'	>	***too**.to.go*	****to**-to.to.go*	'be sick (durative)'
b. *be.i.ha*	'search'	>	***bi**-be.i.ha*	****be**-be.i.ha*	'be searching'