

Word-level ATR asymmetry: Insights from Bondu-so vowel harmony

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The underlying +/-ATR contrast in Bondu-so (Dogon, Mali) verb roots is elusive. So-called *grounded* constraints (Archangeli & Pulleyblank 1994) are said to limit the co-occurrence of certain height/ATR feature combinations, prompting the +/-ATR contrast to be lost in all but mid vowels in suffixed stems. Evidence for a lexical +/-ATR distinction is found, however, in a displaced contrast manifested on suffixes as the result of root-controlled vowel harmony (Hantgan & Davis 2012). (1) shows that the language's ten underlying vowel qualities are realized as only seven phonetic vowels in suffixed verb stems.

(1) nòj-éè	'slept'	dòg-éè	'abandoned'	
bédz-éè	'buried'	kédz-èè	'cut'	
íb-èè	'caught'	nìng-éè	'shut'	cf. /ib-/ vs. /nìng-/
kúmb-èè	'held'	gùb-éè	'hung up'	cf. /kumb-/ vs. /gùb-/
áb-èè	'agreed'	dzàng-éè	'studied'	cf. /áb-/ vs. /dzàng-/

These opaque outcomes in Bondu-so bring to light a typologically unusual asymmetry between stem and suffix in the realization of +/-ATR. That is, one expects in root-controlled vowel harmony that a stem and its suffixes agree in a given feature specification. In the case of Bondu-so, however, the +/-ATR specification of high and low root vowels is displaced and manifested only on suffixal vowels, while subsequently being neutralized on root vowels themselves. Put another way, the featural specification of the lexical head is reduced or neutralized while being subsequently maintained on a following constituent. With additional Bondu-so data, we show that this may be a derivational suffix or even a word-final epenthetic vowel. Because the ATR contrast is displaced even to the latter, one cannot contend that the contrast is consistently being displaced to a morphological head, thus adding to the unusual nature of the phenomenon.

This ATR asymmetry is interesting to us as it is reminiscent of outcomes in the tonology of an array of African languages. In Chadic (Newman 1986), Cushitic (Green & Morrison 2016), Ijoid (Harry & Hyman 2014), and even in other Dogon languages like Tommo-so (McPherson & Heath 2016), so-called *prosodic reduction* often neutralizes the tonal melody of the lexical head of a word- or phrase-level constituent while leaving that of a following modifier (be it a suffix or word) intact. While the details differ somewhat between the tone and ATR scenarios, both illustrate an asymmetry that is otherwise unexpected from the standpoint of syntax and typical head-dependent relationships. That is, the featural specification of a lexical (syntactic) head is affected (neutralized/overwritten) by some morphophonological mechanism, while a non-head position is rendered prominent. This can be via maintenance of its featural specification (as in tone) or in manifesting a displaced lexical contrast (as in Bondu-so ATR).

In this paper, we present Bondu-so data illustrating a displaced contrast and subsequent asymmetry in ATR specification following both suffixal derivation and epenthesis due to word minimality. Our autosegmental analysis appeals to the interaction between grounded constraints on vowel height/ATR co-occurrence, as well as feature and mora licensing and alignment to formalize these interesting and typologically-unusual facts.