A recipe for readjustment - the view from Telugu

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Introduction: The containment analysis (Blake 1994, Caha 2009, Zompi 2017, Smith et al. 2019, a.m.o) of syncretism in case marking posits that complex cases contain the representations of simpler cases. Crucially, this should preclude the possibility of an ABA pattern in case morphology with respect to contiguous sequences of this complexity hierarchy, proposed by Caha and often assumed to be universal. **(1) [[[[[NOM] ACC] GEN] DAT] COM]**

A class of nouns in Telugu (Dravidian) seems to display ABA case patterns, in apparent violation of the hierarchy - I argue that this pattern is actually due to (morpho)phonologically-conditioned allomorphy which occurs post-syntactically.

Two noun classes in Telugu: The relevant allomorphy occurs in nominal stem-forming morphology (i.e., overt *n*) and is triggered by case. Though case containment was originally cashed out as explaining syncretism in case markers themselves, McFadden (2018) shows that case-conditioned allomorphy, too, is subject to the same *ABA constraint cross-linguistically and argues that this is a direct result of containment. Nouns like *ollu* 'body' are predicted by McFadden, while nouns like *samudram* 'ocean' are not (see Fig. 1 for the paradigms - the root *on-* 'body' surfaces as *ol-* in the nominative due to phonologically regular assimilation to the following lateral).

The allomorphy found in the paradigm for the *body*-class has an ABB pattern - one form of *n* (*-lu*) occurs in the nominative, while other cases show a second form of *n* (*-Ti*). This is consistent with case containment - allomorphy triggered by a simple case is also triggered by complex cases which contain that simpler case within them. On the other hand, the allomorphy found in the paradigm for the *ocean*-class has two instances of ABA - in the sequence NOM-ACC-GEN as well as in the sequence GEN-DAT-COM. This is inconsistent with case containment - allomorphy triggered by simpler cases (ACC and DAT respectively) is in fact *not* triggered by complex cases that contain them (GEN and COM respectively).

Fig. 1: Two types of case paradigms in Telugu

	ollu 'body' no ABA	*samudram* 'ocean' ABA pattern
NOM	on-lu-ø	samudr-am-ø
ACC	on-Ti-ni	samudr-aani-ni
GEN	on-Ti-ø	samudr-am-ø
DAT	on-Ti-ki	samudr-aani-ki
COM	on-Ti-to	samudr-am-to

Claim: One way to explain this inconsistency would be to throw out the containment hypothesis entirely. I argue, however, that Telugu is actually 'the exception that proves the rule' - that is, while the allomorphy in *body*-class nouns is sensitive to syntactic structure (and thus consistent with the predictions of case containment), **the allomorphy in *ocean*-class nouns is conditioned purely phonologically (and thus case containment is irrelevant).** I implement this claim for the *body*-class as follows:

(2) **VIs for the *body*-class *n* head *-lu***

a. $[_n \text{LU}] \rightarrow$ lu

b. $[_n \text{LU}] \rightarrow$ Ti / _ [ACC]

The *-lu/-Ti* alternation is cashed out morphosyntactically - the allomorph *-Ti* is triggered by the presence of an ACC head in the same nominal. On the other hand, the *-am/-aani* is cashed out phonologically. Before presenting the solution, it is important to introduce the *plate*-subclass of nouns (exemplified by *pallem* 'plate'), which end in *-em* and pattern the same as *ocean*, only that the alternation is *-em/æni* instead. Note that in the formalization below, I assume that mid vowels are [-high],[-low], so that the natural class of low and mid vowels is [-high].

(3) **VIs and phonological rule for the *ocean*-class**

a. $[_n \text{AM}] \rightarrow$ am

b. $[_n \text{EM}] \rightarrow$ em

c. $\text{-V}_{[-high]}\text{m} \rightarrow \text{-V:}_{[+low]}\text{ni} \; / \; \_ \; \text{C}_{[\text{STOP}]}\text{i}$

Initial Evidence: Despite the ad-hoc nature of (2c), the fact that the segmentally similar *n* heads *-am* and *-em* show a similar alternation suggests that the alternation is due to form as opposed to featural makeup. Secondly, the two case suffixes which trigger the alternation, *-ni* and *-ki*, form a phonological natural class with respect to all other case morphemes - they consist of a stop followed by the vowel /i/.

Prediction I: If *body*-class allomorphy is syntactically conditioned and *ocean*-class allomorphy is phonologically conditioned, we would expect that suffixes homophonous with case but which have a different syntactic makeup (i.e., they are not part of the case containment hierarchy) should result in (1) different behavior on *body*-class nouns and (2) the same behavior on *ocean*-class nouns. We can test this prediction by comparing the behavior of accusative *-ni* with an entirely separate *-ni*, the 1SG nominal agreement morpheme. These suffixes occur on nominal predicates in Telugu, as shown below:

(4) nenu kukka-**ni**
1SG.NOM dog-**1SG**
'I am a dog.'

As predicted, when 'body' is followed by these two morphemes, it behaves differently - only accusative *-ni* triggers allomorphy.

(5) nenu on-**lu**-ni
1SG.NOM body-***n***-1SG
'I am a body.'

(6) nenu aa on-**Ti**-ni cuus-aa-nu
1SG.NOM that body-***n***-ACC see-PST-1SG
'I saw that body.'

However, when 'ocean' is followed by these two morphemes, it behaves the same - both the agreement *-ni* and the accusative *-ni* trigger allomorphy.

(7) nenu samudr-**aani**-ni
1SG.NOM ocean-***n***-1SG
'I am an ocean.'

(8) nenu aa samudr-**aani**-ni cuus-aa-nu
1SG.NOM that ocean-***n***-1SG
'I saw that ocean.'

This is easily explained by saying that while the *body*-class allomorphy is sensitive to the presence of an accusative head/feature in the syntax, the *ocean*-class allomorphy is sensitive only to the form of the case marker itself, not its syntactic makeup.

Prediction II: Allomorphy triggered in the syntax should be subject to structural locality constraints, not linear ones (see Moskal 2018 for more). Thus, my hypothesis predicts that given the right structural context, we should be able to show that the allomorphy in *body*-class nouns can be triggered by a linearly non-adjacent case marker, while the allomorphy in *ocean*-class nouns cannot. In Telugu, modifiers like *mottam* 'whole, entire', occur post-nominally. Since *mottam* occurs linearly between the stem-forming affix and the case marker, this structure provides a testing ground for this prediction:

(9) samudr-**am** mott-aani-ki aakali ayi-tun-di
ocean-***n*** whole-*n*-DAT hunger happen-NONPAST-3SG.NM
'The whole ocean is hungry.'

(10) *samudr-**aani** mott-aani-ki aakali ayi-tun-di
ocean-***n*** whole-*n*-DAT hunger happen-NONPAST-3SG.NM
'The whole ocean is hungry.'

The two examples above show that *ocean*-class allomorphy is ungrammatical when the case marker is not directly adjacent to the noun, even when that same case marker would trigger allomorphy otherwise. However, for 'body', allomorphy is preferred:

(11) ?on-**lu** mott-aani-ki aakali ayi-tun-di
body-***n*** whole-*n*-DAT hunger happen-NONPAST-3SG.NM
'The whole body is hungry.'

(12) on-**Ti** mott-aani-ki aakali ayi-tun-di
body-***n*** whole-*n*-DAT hunger happen-NONPAST-3SG.NM
'The whole body is hungry.'

This alternation shows that while adjacency is a strict requirement for the *ocean*-class, it is not a strict requirement for the *body*-class. This is exactly what one would expect if the former is phonologically triggered and the latter syntactically triggered.

Conclusion: This data is a striking example of the strength of the case containment hypothesis - in Telugu, it is exactly the allomorphy that does not conform to the predictions of case containment that turns out to be phonologically conditioned and thus not relevant for case containment in the first place. It is also an interesting demonstration of the fine line between morphosyntax and morphophonology - though the *-am*/*-aani* alternation does not look like a regular phonological process in Telugu, looking closely at its distribution shows that it must occur post-VI (Kalin 2022).