Morpho-phonological edge-effects and their implications

Background: In recent years, the focus of research concerning cyclic derivation has shifted from purely morpho-syntactic problems to the interface between syntax and phonology (e.g. Marantz 2001, Marvin 2003). Cyclic derivation allows us to explain morpho-phonological phenomena that so far resisted a meaningful solution. At the same time, these morpho-phonological phenomena provide us with new insight into cyclic derivation, and help us gain a deeper understanding of the nature of Spell-out and its interaction with syntactic and morphological movement.

Morpho-phonological edge-effects: My research focuses on constructions that are only minimally different from each other and yet trigger different phonological processes; such contrastive pairs can be found in some languages that distinguish between inalienable possessives (e.g. kinship terms, bodypart nouns) and alienable possessives (everything else). For example, the sequence 'consonant-nasal' (CN) is generally avoided word-internally in Acholi (a Luo-language). The affixation of the possessive suffix *na* 'my' to a C-final root thus leads to the deletion of the nasal in an inalienable possessive construction (1a); surprisingly, no deletion occurs if the possessive receives an alienable interpretation (1b):

(1) a. Inalienable possessive: bad+na → [bada]
arm/leg-my
'my arm' (body part)

b. Alienable possessive: bad+na → [badna]
'my arm/leg' (animal part) (Bavin 1996:852-853)

That this difference is not due to two distinct suffixes can be demonstrated with V-final roots: the possessive construction *obona* 'my lung' is ambiguous between an alienable and an inalienable interpretation. The crucial observation here is that the same morphemes seemingly abide by different phonological wellformedness conditions depending on the meaning of the root. Following Piggott & Newell (2008), I propose that the data in (1) are the result of an interaction between Spell-out and movement. N-deletion only occurs when the adjacent morphemes are fed to PF on the same Spell-out cycle; the nasal is not deleted when the two morphemes are spelled out on separate cycles. It is generally assumed that alienable and inalienable nouns differ from each other in their argument structure in that only inalienable nouns have an open argument slot for their possessor (e.g. Alexiadou 2003). I argue in my paper that this difference has consequences for their structural make-up as well as for their derivation. In particular, I propose that inalienables undergo Spell-out in the same domain as their possessors. By contrast, alienable possessive constructions require an additional functional projection and as a consequence, the root and its possessors are spelled out in separate domains. A purely phonological analysis of the data in (1) above is forced to assume that there are two homophonous variants of the possessive affix. Such an analysis would be merely descriptive and have no explanatory power. What is more, it would ignore the fact that similar data can also be found in other languages and not only in possessive constructions but in the verbal domain as well. A case in point are causative constructions; in Malayalam, the productive causative suffix *-ikk* combines directly with the root; e.g. *ṯiitt-um* 'will feed' becomes *ṯiitt-ikk-um* 'will cause to feed'. Some verbs allow for a distinction between direct and indirect causation (2). In this case, root and causative suffix undergo fusion in direct causative constructions (2b):

(2) a. booṭṭə **muŋŋ-i**
boat sank

b. kuṭṭi booṭṭə **mu-kk-i** (dir. causation: *muŋŋ* fuses with *ikk*)
child-N boat-N sink-CAUSE-PAST
'The child sank the boat.'

c. kuṭṭi booṭṭə **muŋŋ-icc-u** (indir. causation: no fusion)
child-N boat-N sink-CAUSE-PAST
'The child caused the boat to sink.' (Mohanan 2005:71, ex. 18)

Just as in the possessive constructions discussed above, semantic closeness is reflected in the phonology. Somethin similar can be observed in Timugon Murut (an Austronesian language spoken in Malaysia); here, a distinction is made between verbs with incremental themes and obligatorily transitive verbs on the one hand, and optionally transitive verbs on the other hand. In (3), the prefix /maN-/ undergoes nasal assimilation; the referent/object is optional.

(3) Nasal assimilation: /maN-/ + root
/buli/ → [ma**mb**uli] '*Topic/Subj.* will keep *(Referent)*'
/tutu/ → [ma**nt**utu] '*Topic/Subj.* will pound *(Object)*' (Prentice 1971)

In (4) the nasal of the same prefix substitutes the root-initial consonant and the only feature remaining from the root-initial consonant is the place of articulation. In this case, the referent/object becomes compulsory (4).

(4) Nasal substitution: /maN-/ + root
/buli/ → [ma**m**uli] '*Topic/Subj.* will keep *Referent*'
/tutu/ → [ma**n**utu] '*Topic/Subj.* will pound *Object*' (Prentice 1971)

Conclusion: The main claim of my paper is that inalienable constructions, unproductive causatives, and obligatorily transitive verbs lack a functional projection that is present in their respective counterparts (alienable possessives, productive causatives, optionally transitive verbs). The observed phonological differences are expected once we take the interaction between Spell-out and movement into account. I propose that 'destructive phonology' like nasal substitution or deletion can only occur previous to Spell-out and thus is only expected in constructions where base and affix are inside the same phase previous to Spell-out. Yet, the data indicate that less destructive processes like assimilation are still possible after Spell-out. The predictions that follow from this analysis are clear; I would not expect to find a morpho-phonological contrast where destructive phonology occurs in the construction that is semantically less close.

References

Alexiadou, A. 2003. Some notes on the structure of alienable and inalienable possessors. In *From NP to DP. Volume 2: The expression of possession in noun phrases*, ed. by M. Coene & Y. D'hulst. Amsterdam/Philadelphia: John Benjamins Publishing Company, 167-188.

Bavin, E. 1996. Body parts in Acholi: alienable and inalienable distinctions and extended uses. In *The grammar of inalienability. A typological perspective on body part terms and the part-whole relation*, ed. by H. Chappell & W. McGregor. Berlin, New York: Mouton de Gruyter, 841-864.

Marantz, A. 2001. Words. Ms. MIT.

Marvin, T. 2003. *Topics in the stress and syntax of words*. PhD thesis. MIT.

Mohanan, K.P. 2005. Move NP or Lexical Rules? Evidence from Malayalam Causativisation. In *Lexical Semantics in LFG*, ed. by M. Butt & T. Holloway King. Stanford, CA: CSLI Publications, 59-120.

Piggott, G. & H. Newell. 2008. Syllabification, stress and derivation by phase in Ojibwa. Ms. McGill University.

Prentice, D.J. 1971. *The Murut Languages of Sabah.* Canberra: Pacific Linguistics