Life on the Edge: There’s Morphology There After All! *

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Morphosyntactic properties assigned to an entire phrase, such as case in
DPs, are often marked at only one place in that phrase. In some instances
this marking consists of inflection of the head of the phrase, while in many others the
realization of such properties appears at either the left or right periphery of the phrase.

Lapointe (1990, 1992) proposed that these should be treated as “EDGE” features,
attracted to the word appearing at the appropriate edge of the constituent and realized
there as inflection on that word. In contrast, Anderson (2005) proposes to treat such
cases not as inflection of an individual peripheral word of the phrase, but rather as
genuinely phrasal inflection, as clitics marking the phrase as a whole and attracted to
the appropriate edge through the ranking of a set of constraints that govern a wide
range of phenomena.

Anderson (2005) shows that many cases of apparent edge-inflection, including the
English genitive, Polynesian definiteness markers, and others can be accommodated
by this proposal without invoking mechanisms for the transfer of phrasal features to
the inflection of a peripheral word. The goal of this paper is to discuss three examples
in which it is not borne out.

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should not be taken to imply that they necessarily agree with the theoretical stance taken. We are also
grateful to Nazara Waozisokhi for his help with Nias, and to John Saeed for help with Somali.
1 Introduction: the Problem

The analysis of phrasal properties that are realized exclusively at the left or right periphery of the relevant phrase as invoking the inflectional morphology of the leftmost (or rightmost) word of that phrase was proposed at least as early as Nevis 1986, Zwicky 1987. An explicit incorporation of this account within G(H)PSG, invoking a specific class of designated edge features, was suggested by Lapointe (1990, 1992), and received its most detailed and explicit formulation in Miller 1991. The distinguishing character of such an analysis is the definition of edge features as phrasal properties realized through the inflection of the Left-/Right-most word of the phrasal constituent to which they apply.

The standard example of such edge-inflection is the famous “group genitive” in English the King of England’s crown or Swedish Hennes Majestät Drottningen af Sveriges närvaro ‘the presence of Her Majesty, the Queen of Sweden’. The (’)s marking the genitive relation in each of these phrases could be treated as a property of the possessor phrase (the King of England, Hennes Majestät Drottningen af Sverige) which is realized as genitive inflection of its final word (England, Sverige). As is well known, the distribution of this marker is quite general, and the word on which it appears often bears no particular direct relation (genitive or otherwise) to the head of the DP within which its containing phrase appears as the Determiner. This is illustrated by the examples in (i).

(i) a. Fred’s taste in wallpaper is appalling.
   b. The man in the hall’s taste in wallpaper is appalling.
   c. Every man I know’s taste in wallpaper is appalling.
   d. That brother-in-law of mine that I was telling you about’s taste in wallpaper is appalling.
   e. Even the attractive young person who is trying to flirt with you’s taste in wallpaper is appalling.
   f. (Swedish) Professorn i tyskas fru är berusad

English genitive: a feature [edge:last] which propagates down along the right edge of a nominal with the feature [poss] until it gets to a (final) word. This word is then inflected as a genitive by adding ‘s.

1See Anderson 1985, 1988 for this terminology
This analysis has some unfortunate properties, however. In English, it requires us to say that virtually any word belonging to any category can be inflected as a genitive, to the extent it can appear finally within a possessor DP: thus, to must have a genitive form in *the man I was talking to’s brother-in-law*. The “genitive” of the first person pronoun in *the man who hit me’s face* is quite different from that in *my face*. In addition, the required structural relation between a phrase and its first/last word (as opposed to that between a phrase and its head) is not independently known to be a significant one.

Some problems:

1. Virtually any word belonging to any category can be inflected as a genitive, to the extent it can appear finally within a possessor DP: thus, to must have a genitive form in *the man I was talking to’s brother-in-law*.

2. The “genitive” of the first person pronoun in *the man who hit me’s face* is quite different from that in *my face*.

3. The required structural relation between a phrase and its first/last word (as opposed to that between a phrase and its head) is not independently known to be a significant one.

**Special clitics**: modifications in the PF-form of a phrase on the basis of properties of that phrase (Anderson 2005).

English genitive: “Adjoin /z/ to the final syllable of a DP bearing the feature [+Genitive]”

Pronouns are determiners; they take their possessive form in the special case of a genitive DP consisting of nothing but a D. [For the resolution of other properties of the English possessive noted in the literature, cf. Anderson 2005]

Prediction: if all “edge features” are actually prefixal or suffixal special clitics, their realization should never depend on *lexical* properties of the first/last word of the phrase (as opposed to phonological properties, or morphosyntactic properties of the entire phrase).

The clitic and edge-feature analyses of peripheral marking differ in at least one important prediction. Since the edge-feature account involves word-level inflection of the peripheral element, it predicts that the form of the marker could in principle be sensitive to information (lexical or grammatical) particular to that word. The clitic analysis, in contrast, predicts that only the properties of the phrase as a whole (including its phonological shape as well as its morphosyntactic features) could play a role in determining the shape of the marker.
2 Nias Selatan

In this Austronesian language of Sumatra (Brown 2001), the leftmost word of a DP appears in a changed or ‘mutated’ form to mark Absolutive case (as well as under certain other circumstances, such as in possessors).

Mutation in Nias Nouns Brown 2001, p. 39):

(2) Base form Mutated Alternation

<table>
<thead>
<tr>
<th>Base form</th>
<th>Mutated</th>
<th>Alternation</th>
</tr>
</thead>
<tbody>
<tr>
<td>fakhe ‘rice’</td>
<td>vakhe</td>
<td>f→v</td>
</tr>
<tr>
<td>tanö ‘land’</td>
<td>danö</td>
<td>t→d</td>
</tr>
<tr>
<td>si’o ‘stick’</td>
<td>zi’o</td>
<td>s→z [ʣ]</td>
</tr>
<tr>
<td>ci’aci’a ‘gecko’</td>
<td>zi’aci’a</td>
<td>c [ʧ] → z [ʣ]</td>
</tr>
<tr>
<td>kefe ‘money’</td>
<td>gefe</td>
<td>k→g</td>
</tr>
<tr>
<td>baβi ‘pig’</td>
<td>mbaβi</td>
<td>b→mb [b]</td>
</tr>
<tr>
<td>doi ‘thorn; fishbone’</td>
<td>ndroi</td>
<td>d→ndr [d’]</td>
</tr>
<tr>
<td>öri ‘village federation’</td>
<td>nori</td>
<td>ø [ʔ] → n</td>
</tr>
</tbody>
</table>

(3) a. ... orahu zi’ilu ba si-ila ba
    ... have.meeting MUT.village.leader (si’ilu) and advisor and
    niha mbanua
    person MUT.village (banua)
    ... the village leader, his advisors and the people of the village had a meeting

b. I-be khö-gu mbaru si=bohou
   3SG-REALIS-give DAT-1SG.POSS MUT.dress (baru) REL=new
   She gave me a new dress

c. Ma=u-atulö-’ö zi=ma ö-sura
   PERF=1SG-CORRECT-TRANS MUT.REL=PERF (si=ma) 2SG-REALIS-write
   I’ve corrected what you wrote

Vowel initial stems (all with phonetic initial [ʔ])
(4)

<table>
<thead>
<tr>
<th>Base form</th>
<th>Mutated</th>
<th>Base form</th>
<th>Mutated</th>
</tr>
</thead>
<tbody>
<tr>
<td>öri ‘village federation’</td>
<td>nöri</td>
<td>öri ‘amulet’</td>
<td>göri</td>
</tr>
<tr>
<td>uñłu ‘plank’</td>
<td>nuñłu</td>
<td>uñlu ‘part of coconut with eyes’</td>
<td>guñlu</td>
</tr>
<tr>
<td>oñó ‘boat’</td>
<td>noñó</td>
<td>oñoto ‘small dike’</td>
<td>goñoto</td>
</tr>
<tr>
<td>iñşa ‘sibling’</td>
<td>niñşa</td>
<td>iñso ‘movement (e.g. of lips)’</td>
<td>giñso</td>
</tr>
<tr>
<td>ete ‘bridge’</td>
<td>nete</td>
<td>ete‘ete ‘long unbroken wave’</td>
<td>gete‘ete</td>
</tr>
<tr>
<td>adu ‘statue of ancestor’</td>
<td>nadu</td>
<td>adulo ‘egg’</td>
<td>gadulo</td>
</tr>
</tbody>
</table>

(5) Abe’e sibai gehomo nomo s=e-bua

The pillars of the big house are very strong

\([?]/g in vowel-initial words comes from PAn *q, *k; [?] /n from PAn vowel initials or initial *S. We could say that the words that show initial g in mutated forms have underlying /?/, while those with initial n do not, and a post-lexical rule neutralizes the difference by inserting [?] before word-initial vowels.

Pronouns:

(6)

<table>
<thead>
<tr>
<th>unmutated</th>
<th>mutated</th>
<th>unmutated</th>
<th>mutated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
<td>ya’o</td>
<td>ndrao</td>
<td>1p</td>
</tr>
<tr>
<td>1s EMPH</td>
<td>ya’oto</td>
<td>ndraoto</td>
<td>1pe</td>
</tr>
<tr>
<td>2s</td>
<td>ya’ugö</td>
<td>ndraugö</td>
<td>2p</td>
</tr>
<tr>
<td>3s</td>
<td>ya’ia</td>
<td>ya</td>
<td>3p</td>
</tr>
</tbody>
</table>

Collective prefix ira- mutates as ndra- (ira-ono ‘children’; mutated form ndra-ono)

(7)

a. Fa-gohi ndra’ugö ba ya’oto ba lala
   run MUT.2SG and 1SG LOC road
   You and I ran along the road

b. U-’ila ami si=darua ono matua ba lala
   1SG-see MUT.2PL REL=two child male LOC road
   I saw you two boys on the road

c. I-’elifi ira iraono-ra ba nga’ötö-ra
   3SG-curse MUT.3PL children-3PL.POSS and descendant(s)-3PL.POSS
   He cursed them, their children and their descendants
d. I-’elifi ndraono-ra ba nga’ötö-ra
3SG-curse MUT.children-3PL.POSS and descendant(s)-3PL.POSS
He cursed their children and their descendants

Conclusion: Nias Selatan mutation is sensitive to the lexical identity of the leftmost word in the phrase to which it applies (to mark case).

3 Kuuk Thaayorre

1. In this Paman language spoken in the community of Pormpuraaw, Cape York Peninsula, Australia, ergative marking takes a number of lexically idiosyncratic and phonologically unpredictable forms (Gaby 2005):

<table>
<thead>
<tr>
<th>Nominative</th>
<th>Ergative</th>
<th>Nominative</th>
<th>Ergative</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘meat’ minh</td>
<td>minh-al</td>
<td>‘good’ min</td>
<td>min-thurr</td>
</tr>
<tr>
<td>‘dog’ kuta</td>
<td>kuta-ku</td>
<td>‘woman’ paanth</td>
<td>paanth-u</td>
</tr>
<tr>
<td>‘eye’ meer</td>
<td>meer-e</td>
<td>‘cat’ thok</td>
<td>thok-un</td>
</tr>
<tr>
<td>‘crocodile’ pinj</td>
<td>pinj-l</td>
<td>‘child’ parr_r</td>
<td>parr-an</td>
</tr>
<tr>
<td>‘boomerang’ werngr</td>
<td>werng-arr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Ergative marking only appears on the rightmost word within the nominal phrase (Gaby in preparation):

(a) minh kothon-thurr pam nhaa-nham
    MEAT wallaby-ERG man.ACC see-IMPERF
    The wallaby saw the man

(b) wa’ar pam.thaawarr-an nhul kar paath-thrr thaath-irr nganh yangkar jellyfish dangerous-ERG 3SG like fire-ERG sting-PERF 1SG.ACC leg
    The venomous jellyfish stung me like fire on the leg

(c) ngan pumun ngathan-thurr kuta theerngarr RELATIVE younger.brother my-ERG dog.ACC hit
    My younger brother hit a dog

3. Ergative marking does not appear on a DP-final demonstrative:

(a) pam-al ith nhul may carrots yakakerr man-ERG DEM.DIST he-ERG VEG carrots.ACC cut up
    The man(, he) cut up the carrots
Either (a) demonstratives do not have an ergative form, or (b) [ergative] is marked at the right edge of NP internal to DP.

4. Conclusion: Kuuk Thaayorre ergative marking constitutes another instance of edge marking. Blake (1987) suggests that similar facts obtain in several other Australian languages.

4 Somali

1. In Somali (Andrzejewski 1964, Lecarme 2002, Saeed 1999), out of focus subject DPs are marked as Nominative by a combination of tonal, vowel change, and affixation phenomena at their right edge.

2. Simplest form of Nominative marking: delete High tones from the last two moras.

<table>
<thead>
<tr>
<th>Base</th>
<th>Nominative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cáli</td>
<td>Cali</td>
</tr>
<tr>
<td>Faadumo</td>
<td>Faadumo</td>
</tr>
<tr>
<td>dibi</td>
<td>dibi</td>
</tr>
<tr>
<td>hooyó</td>
<td>hóoyo</td>
</tr>
</tbody>
</table>

3. Many forms also suffix -i. This includes Feminine Nouns except those ending in -o, 'sub-plurals' formed by shifting the accent (e.g., orgí ‘he-goats’, sg. órgi; kutúb ‘books’, sg. kútub) and Arabic plurals.

<table>
<thead>
<tr>
<th>Base</th>
<th>Nominative</th>
</tr>
</thead>
<tbody>
<tr>
<td>bisád</td>
<td>bisad-i</td>
</tr>
<tr>
<td>carrúur</td>
<td>carruur-i</td>
</tr>
<tr>
<td>maraakíb</td>
<td>maraakiib-i</td>
</tr>
</tbody>
</table>

4. Nominative marking is confined to the last word of the DP:
5. But (non-phonological) properties of this final word determine the form of the marking:

<table>
<thead>
<tr>
<th>Base Nominative</th>
<th>Base Nominative</th>
</tr>
</thead>
<tbody>
<tr>
<td>'their mother'</td>
<td>hooyád-óod</td>
</tr>
<tr>
<td>'the young boy' (past)</td>
<td>ínan-kíi yaráa</td>
</tr>
<tr>
<td>'meat, rice and milk'</td>
<td>hílib, baríís iyo caanó</td>
</tr>
<tr>
<td>'the man who owned the shop'</td>
<td>nín-kíi dukáan-ka laháa</td>
</tr>
<tr>
<td>'a man who knows a lie'</td>
<td>nín béen yaqáan</td>
</tr>
</tbody>
</table>

6. Other words have segmental changes as part of Nominative marking:

<table>
<thead>
<tr>
<th>Base Nominative</th>
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</tr>
</thead>
<tbody>
<tr>
<td>'this man'</td>
<td>nín-kán</td>
</tr>
<tr>
<td>'the young boy' (present)</td>
<td>ínan-ka yár</td>
</tr>
<tr>
<td>'brothers who hate one another'</td>
<td>walaalló is necéb</td>
</tr>
<tr>
<td>'the man who did not go'</td>
<td>nín-kíi áan tegín</td>
</tr>
</tbody>
</table>

7. A puzzle: where does Nominative inflection occur in the grammar? (?Post-Lexical) rule: m → [n/____#]

(a) Root /rum/ ‘truth’: rún ‘truth’; rún-i ‘truth (nom.)’; rún-na ‘and truth’; run-i-na ‘and truth (nom.)’
(b) Root /nim/ ‘man’: nín ‘man’; nim-á-n ‘men’; nín-na ‘a man’
(c) Root /dham/ ‘complete’: wáy dhamm-aatay ‘it finished’; Soomáali óo dhán ‘all the Somalis; Soomáali óo dhamm-i ‘all the Somalis (nom.)’
(d) Root /xum/ ‘bad’: wáy xum-aatay ‘it became bad’; nín xún ‘a bad man’; nín xumi ‘a bad man (nom.)’

Apparently, Nominative inflection is post-lexical when it applies to a phrase consisting of a single word, but lexical when it applies to a multi-word phrase.
5 An Analysis

1. EDGE inflection is a relation directly between a phrase marked for a given feature and a terminal (Word) within that phrase. The intervening layers of structure are strictly irrelevant (Lapointe 1992).

2. *W+F “Do not inflect words for the feature [+F]”

3. Align(XP_F, R/L, W_F, R/L) “The Right/Left edge of a phrase with the feature [+F] should be aligned with the Right/Left edge of a Word with the feature [+F]”

4. Align(XP_F, R/L, W_F, R/L) ≫ *W+F “Only inflect a Word for [+F] where necessary to satisfy the requirement that the rightmost word in a [+F] phrase manifest that feature.”

5. Some generalizations about EDGE inflections:

   (a) Phrasal properties realized as EDGE features don’t participate in Agreement (Nevis 1986, Lapointe 1992). That follows from the fact that the known (real) examples all involve configurational properties assigned to phrases from outside. The analysis here could not describe a case in which an inherent property of the EDGE-most word was inherited by entire phrase, where it could serve as the basis of Agreement.

   (b) Properties instantiated at the left edge are realized by modifications to the beginning of the first word, while properties instantiated at the right edge are realized by modifications to the end of the last word.
References


