

Aleut case matters

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3 May 2008

Conference on Pragmatics, Grammatical Interfaces, and Jerry Sadock
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1 Aleut cases

All data from Bergsland 1997 (henceforth AG) and Bergsland and Dirks 1981 (henceforth AASG), mostly as reported in Sadock 1999, Sadock 2000, and Boyle 2000 (see also Fortescue 1985 and Leer 1987)

- (1) Two cases on nominals:

‘relative’	‘absolute’
-m	- \hat{x} (sg.) -s (pl.)
- (2) Two sets of inflections on verbs:

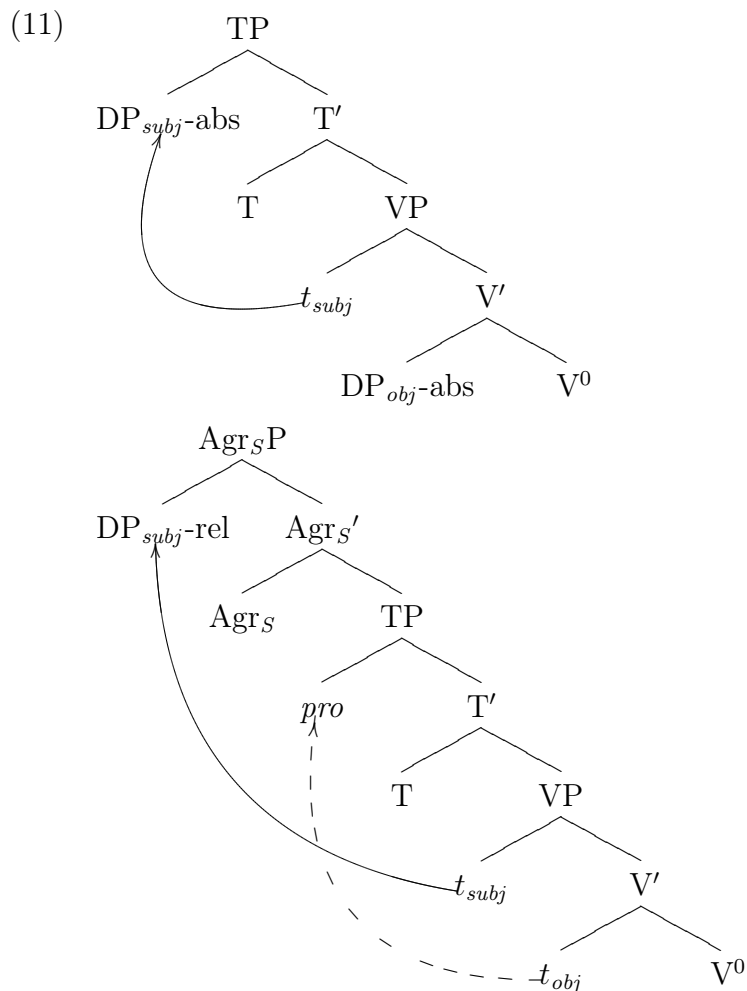
‘anaphoric’ (/A/ in the glosses) e.g. -V (3/A/sg)	‘nonanaphoric’ (unmarked in glosses) - \hat{x} (3/sg.3)
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- (3) a. Piitra- \hat{x} Ivaana- \hat{x} kidu-ku- \hat{x} .
Peter-3/sg.abs John-3/sg.abs help-PRES-3/sg.3
‘Peter is helping John.’ (AASG:32)
- b. Piitra-m _ kidu-ku-u.
Peter-3/sg.rel help-PRES-3/A/sg
‘Peter is helping him.’ (AASG:32)
- (4) THE ‘ALEUT EFFECT’ (Sadock 1999, Sadock 2000):
The relative case is used when there is an NP missing from the predicate

*and Jerrold Sadock, without whom I wouldn’t have even the meager understanding that I do of Aleut; this project is in fact a joint one with Jerry, inspired and instigated by him—this presentation would in fact be co-authored if Jerry had known I was presenting it, but etiquette demands that one not present in one’s own honor. Plus I didn’t tell him beforehand. Plus he might hate the analysis...! Tusind tak og undskyld hvis der er fejl i dataene eller analysen, Jerry!

- (5) [if a] 3.p[erson] complement or a subordinate part of it is left out as known from context or the situation there is in general a suffixal reference to it in the final verb and a nominal subject is in the relative case. (Bergsland 1997:126)
- (6) a. Ivaana- \hat{x} kanfiixta-s yaasika-m nagan a \hat{g} i-ku- \hat{x} .
John-3/sg.abs candy-pl.abs box-3/sg.rel in put-PRES-3/sg
 ‘John put the candies in the box.’ (AASG:98)
- b. Ivaana-m kanfiixta-s _ nagan a \hat{g} i-ku-u.
John-3/sg.rel candy-pl.abs in put-PRES-3/A/sg
 ‘John put the candies in it.’ (AASG:98)
- (7) Missing possessor of a non-subject:
- a. Piitra- \hat{x} hla-s ada-a kidu-ku- \hat{x} .
Peter-3/sg.abs boy-pl father-3/A/sg.abs help-PRES-3/sg
 ‘Peter is helping the boys’ father.’ (AG:144)
- b. Piitra-m _ ada-a kidu-ku-u.
Peter-3/sg.rel father-3/A/sg.abs help-PRES-3/A/sg
 ‘Peter is helping the boy’s father.’ (AG:144)
- (8) Hanging topics:
- a. taya \hat{g} u- \hat{x} qa- \hat{x} qa-ku- \hat{x} .
man-sg.abs fish-sg.abs eat-PRES-3/sg
 ‘The man is eating the fish.’
- b. qa- \hat{x} taya \hat{g} u-m _ qa-ku-u.
fish-sg.abs man-sg.rel eat-PRES-3/A/sg
 ‘The fish, the man is eating it.’ (Bergsland 1969:27)
- (9) Missing *subjects* do not trigger anaphoric inflection:
- Ivaana- \hat{x} kidu-ku- \hat{x} .
Ivan-3s.abs help-PRES-3s
 ‘He/she is helping Ivan.’ (AG:8)
- (10) Promiscuous number marking:
- kidu-ku-ngis.
help-PRES-3/A/pl
 ‘He/she/they is/are helping them.’
 ‘They are helping him/her/them.’ (AASG:10)

1.1 A movement approach

Boyle 2000 proposes that null *pros* must be licensed in specTP (and that they trigger agreement); the Relative Case is assigned by Agr_S in a specially projected specAgr_SP when specTP is thus occupied:



Parallels: *ga*→*no* conversion in Japanese (Miyagawa 1993, Ochi 2001), -An/-DIK¹ participial morphology in Turkish (Cagri 2005)

- (12) a. Relative clauses
 [John-ga/no _ katta] hon
John-NOM/GEN bought book ‘the book John bought’
- b. Gapless complement-to-N clauses:
 John-ga/no kuru kanousei
John-NOM/GEN come probability ‘the probability that John will come’
- (13) a. [_ divan-da otur-an] bayan
sofa-LOC sit-SR lady
 ‘the lady who is sitting on the sofa’

¹SR = subject relative, NSR = non-subject relative

- b. [bayan-in _ otur-duğ-u] divan
lady-GEN sit-NSR-3s sofa
 ‘the sofa that the lady is sitting on’

1.2 Gaps in islands (?) trigger the Aleut effect in the matrix

- (14) a. Qa- \hat{x} igiim a \hat{x} s sağa-qa-a una-ku-u.
fish-abs.s dat.3R give.CONJ do.yesterday-PRT-3.A.s cook-PRES-3.A.s
 ‘She is cooking [which] the fish he gave her yesterday.’ [AASG 139]
- b. Una-na-ngin qaatuda-ku-ng.
cook-PART-3/A/p like.to.eat-PRES-A.1s/s
 ‘I like to eat what (things) she is cooking.’ [AG 289]
- (15) a. sa- \hat{x} kalu-l angali-i uku-ungan a \hat{x} ta-ku-ng.
duck-abs/s shoot-CONJ did.today-PART/abs/A/s find-ANT/3s be-PRES-1s/A/s
 ‘I found the duck he had shot.’ (AASG:132-133)
- b. tayağu-m sa- \hat{x} kalu-l angali-i aslixta-angan
man-rel/s duck-abs/s shoot-CONJ did.today-PART/abs/A/s meet-ANT/3s
a \hat{x} ta-ku-q.
be-PRES-1s
 ‘I met the man who shot the duck.’ (AASG:132-133)²

SIDE NOTE: Possessors also occur in the relative (and trigger anaphoric marking on the possessum); this is why the participial form in (15) is anaphoric and the embedded subject in the relative case:

- (16) tayağu-m ula-a *cf. Turkish* adam-in ev-i
man-rel/s house-abs/A/s man-GEN house-3sPOSS
 ‘the man’s house’

Examples elicited by Anna Berge in Anchorage (from a speaker of the Pribilovian dialect, not Atkan):

- (17) a. uut(a)ka- \hat{x} tumhdaana \hat{x} .
duck-abs shot.3s ‘He shot a duck.’
- b. uut(a)ka- \hat{x} alağu-m ilan kimina \hat{x} .
duck-abs sea-rel into sank.3s ‘The duck sank into the ocean.’
- c. uut(a)ka- \hat{x} tumhda-qa-a alağu-m ilan kimi-na- \hat{x} .
duck-abs/s shoot-PART-abs/A/s sea-rel/s into sink-PAST-3s
 ‘The duck he shot sank into the ocean.’
- d. * uut(a)ka \hat{x} tumhda-qa-a alağum ilan kimi-qa-a.
duck-abs/s shoot-PART-abs/A/s sea-rel/s into sink-PAST-A/3s

²Aleut seems to have internally headed relatives of the sort described in Williamson 1987.

Is this a killer? Well...

Turkish again (Cagri 2005:8):

- (18) a. [[_ kız-ı] kitab-ı getir-en] adam
girl-POSS book-ACC bring-SR man
‘the man whose daughter brought the book’
b. [[_ biz-e güven-eceğ-i] şüpheli ol-an] adam
1p-DAT trust-FUT-POSS doubtful be-SR man
‘the man who that (he) will trust us is doubtful’

Japanese again (Ochi 2001):

- (19) a. [[[Rubii-ka shinju]-ga yasuku-naru] kanousei]-ga 50% izyoo da.
ruby-or pearl-NOM cheap-become probability-NOM 50% over is
i. ‘The probability that (either) rubies or pearls will become cheap is over 50%.’
ii. ≠ ‘(Either) the probability that rubies will become cheap or the probability that pearls will become cheap is over 50%.’
b. [[[Rubii-ka shinju]-no yasuku-naru] kanousei]-ga 50% izyoo da.
ruby-or pearl-GEN cheap-become probability-NOM 50% over is
i. ‘The probability that (either) rubies or pearls will become cheap is over 50%.’
ii. ‘(Either) the probability that rubies will become cheap or the probability that pearls will become cheap is over 50%.’
(20) [[[John-ka Mary]-ga/no katta] hon]-o misete.
John-or Mary-NOM/GEN bought book-ACC show.me
a. ‘Show me the book that (either) John or Mary bought.’
b. ‘Show me (either) the book that John bought or the book that Mary bought.’

1.3 Tracking dependencies

Aleut shows a fairly intricate system, but one with one goal: to track missing things. Q: Is this system similar to wh-agreement tracking systems or to switch-reference tracking systems? (Or a bit of both?)

↪ *wh*-agreement system of Chamorro (all data from Chung 1998): what’s unusual about Chamorro (vs. Celtic, Coptic, etc.) is that the agreement also indexes the *case* of the extractee).

- (21) Inflection on verbal and adjectival predicates in wh-question:
[Nom] -um- when the predicate is realis and transitive
[Obj, Obj2] (optional) nominalization, plus -in- when the predicate is transitive
[Obl] nominalization, plus (optional) -in- when the predicate is unaccusative

Overt realization of wh-agreement *replaces* regular subject-verb agreement.

(If wh-agreement is not overt, then the predicate has the regular subj-verb agreement.)

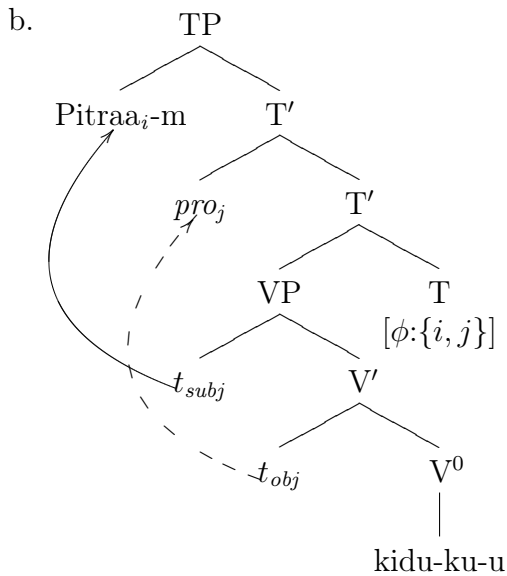
- (22) a. *Ginin hayi na un-chuli' i lepblu? C184 (PPs don't trigger wh-agr)*
from who? Comp AGR[2s]-take the book
 'From whom did you take the book?'
- b. *Hafa malago'-mu? C184*
what? WH[obl].want-AGR[2s]
 'What do you want?'
- c. *Hafa fina'tinas-niha i famalao'an? C201*
what? WH[obj].make-AGR[3p] the women
 'What did the women cook?'
- d. *Hayi sinangane-nña si Juan malago'-ña pära u-bisita?*
who? WH[obj2].say.to-agr DP_N Juan WH[obl].want-agr Fut WH[obj].agr-visit
 'Who did Juan tell (us) that he wants to visit?' C211

1.4 Back to Aleut

Two ideas:

- (23) a. Multiple Agree (Hiraiwa 2001, Merchant to appear, Nevins 2007, et multi alii):
 T 'probes' (agrees with) every DP in its domain (specifier and head)
- b. Null arguments move to T (if they're clitics) or specTP (as for Chinese argument-drop following Huang 1984; tucking in multiple specifiers: Richards 2001)

- (24) a. *Piitraa-m _ kidu-ku-u.*
Peter-3/sg.rel help-PRES-3/A/sg
 'Peter is helping him.' (AASG:32)



- (25) a. Probe/trigger: $\text{Pitraa}[\phi:\{3s\}]$
 b. Goal: $\text{T}[\phi:\emptyset]$

- c. Agree(DP,T; ϕ) \rightsquigarrow T[ϕ :{3s}]
- d. Probe: *pro*[ϕ :{3s}]
- e. Goal: T[ϕ :{3s}]
- f. Agree(DP,T; ϕ) \rightsquigarrow T[ϕ :{3s,3s}]

Idea: contextually sensitive morphological spell-out rules (Perlmutter 1971, Farkas and Kazazis 1980, Sadock 1991, Ackema and Neeleman 2004, Nevins 2007, etc.)

(26) Morphological case rules in Aleut

- a. /-m/ \leftrightarrow [Case]/ _ *pro.3*
- b. / \hat{x} / \leftrightarrow [Case] *elsewhere*

(27) Morphological verbal agreement rules in Aleut

a. ‘Anaphoric’ inflections (polyvalent)

- i. /-V/ \leftrightarrow T[ϕ :{3s,3s}]
- ii. /-ng/ \leftrightarrow T[ϕ :{1s,3s}]
- iii. /-ngis/ \leftrightarrow T[ϕ :{3p,3}]
- ⋮

b. Nonanaphoric inflection (monovalent)

- i. /- \hat{x} / \leftrightarrow T[ϕ :{3s}]
- ii. /-q/ \leftrightarrow T[ϕ :{1s}]
- ⋮

(28) a. Una-na-ngin qaatuda-ku-ng.

cook-PART-3/A/p *like.to.eat*-PRES-A.1s/s

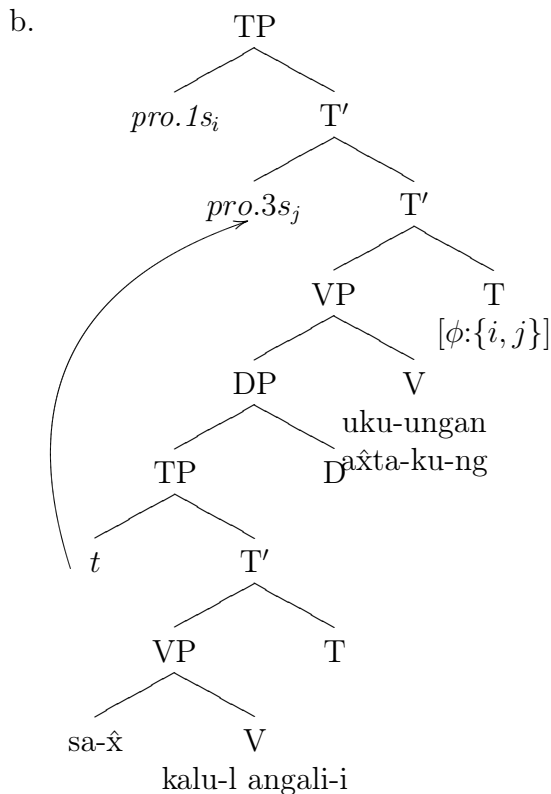
‘I like to eat what (things) she is cooking.’ [AG 289]

- b. *pro.1s pro.she* [_{TP} *t* [_{T'} *pro.pl* [_{VP} *t* una-na-ngin]]] qaatuda-ku-ng
-

(29) a. sa- \hat{x} kalu-l angali-i uku-ungan a \hat{x} ta-ku-ng.

duck-abs/s shoot-CONJ *did.today*-PART/abs/A/s *find*-ANT/3s *be*-PRES-1s/A/s

‘I found the duck he had shot.’ (AASG:132-133)



2 Architectural deliberations

Grammatical architectures that are isomorphic to Sadock 1991: LFG, many Minimalist grammars, certain grammars formulated in OT, and the unnamed framework of Jackendoff 2002 and Culicover and Jackendoff 2005 (all have independently generated representations that are subject to possibly violable interface conditions; not true of TAGs, CCGs, and HPSG)

2.1 Minimalism: A grammar fragment

(30) DEFINITION: GRAMMAR

A grammar G consists of a pair of a set of lexical elements L and a set of operations

O :

$G = \langle L, O \rangle$

(31) DEFINITION: DERIVATION

A derivation on a numeration D_N is a pair:

a set of lexical elements from L , called the Numeration N , and

an ordered n-tuple of phrase markers PM :

$D_N = \langle N, \langle PM_1, \dots, PM_n \rangle \rangle$

(32) DEFINITION: CONVERGENCE

A derivation D_N *converges* iff

1. PM_n contains no unchecked strong (*) features

2. PM_n contains no unvalued ($:_$) features
3. All elements in the Numeration have been Merged
4. For each adjacent pair of phrase markers $\langle PM_k, PM_{k+1} \rangle$ in D_N , there is an operation Ω such that Ω applied to PM_k yields PM_{k+1} .

(33) DEFINITION: AGREE(X,Y;F)

For any syntactic objects X and Y, where X bears a feature F with value Val(F) and Y bears a matching (unvalued: \pm) inflectional feature F', and X c-commands Y,
 let $\text{Val}(F') = \text{Val}(F') \cup \text{Val}(F)$

3 Conclusion

There's no escape from automodularism!

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