Archi biabsolutives

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Introduction

In earlier work I proposed that Archi clausal agreement is a result of the constraint formulated informally in (1).

(1) An agreeing element agrees with an absolutive argument in the same order domain.

This approach presupposes that there is never more than one absolutive argument in a specific order domain. There is no problem about a sentence with two absolutives as long as they are in different order domains. Thus, the example in (2) is no problem as long as *But꞉a* and *w-i* are in one order domain and *buq'* and *b-e‹r›k'u-r-ši* in another.

(2)	But꞉a	buq'	b-e‹r›k'u-r-ši	w-i
	Butta(I)[SG.ABS]	grain(III)[SG.ABS]	III.SG-‹IPFV›sort-IPFV-CVB	I.SG-be.PRS
	'Butta is sorting grain.' (=(1))			

This is essentially a variant of Kibrik's approach. However, there is some data which suggests that the approach in (1) is untenable and needs rethinking.

Background

Most work in HPSG has an ARG-ST (ARGUMENT-STRUCTURE) feature, which encodes the basic combinatorial properties of a word, and two VALENCE features, SUBJ (SUBJECT) and COMPS (COMPLEMENTS), which encode the more superficial combinatorial properties of both words and phrases.

All three features have a list as their value. In the case of SUBJ, the list never has more than one member.

The value of AGR is normally the concatenation of the values of SUBJ and COMPS, as follows:

(3)

$$\begin{bmatrix} \text{ARG-ST} & \langle [1] \rangle \oplus [2] \\ \text{SUBJ} & \langle [1] \rangle \\ \text{COMPS} & [2] \end{bmatrix}$$

But null subjects are commonly analyzed as elements which appear in ARG-ST lists but not in SUBJ lists. On this view, null subject verbs have the following features:

(4)

$$\begin{bmatrix} \text{ARG-ST} & \langle [] \rangle \oplus [1] \\ \text{SUBJ} & \langle\rangle \\ \text{COMPS} & [1] \end{bmatrix}$$

It is also widely assumed that unbounded dependency gaps only appear in ARG-ST lists and not in VALENCE lists. On this view, *saw* in (5) has the features in (7), but *see* in (6) has those in (8).

(5) Kim saw Lee.
(6) Who did Kim see?

(7)

$$\begin{bmatrix} \text{ARG-ST} & \langle [1]\text{NP}, [2]\text{NP} \rangle \\ \text{SUBJ} & \langle [1] \rangle \\ \text{COMPS} & \langle [2] \rangle \end{bmatrix}$$

(8)

$$\begin{bmatrix} \text{ARG-ST} & \langle [1]\text{NP}, \text{NP} \rangle \\ \text{SUBJ} & \langle [1] \rangle \\ \text{COMPS} & \langle\rangle \end{bmatrix}$$

Since, both null subjects and unbounded dependency gaps are involved in agreement, this approach entails that agreement must be the product of constraints on ARG-ST lists.

This view of agreement is plausible where agreement is between certain heads and one of their arguments.

But this is not what we have in Archi clausal agreement. This is sometimes between a head and an argument and sometimes between one argument and another.

An approach to agreement involving the VALENCE features is also only plausible where agreement is between heads and arguments.

In much HPSG, there are two other possibilities. Agreement might be the product of constraints on constituent structure, encoded by the DTRS (DAUGHTERS) feature, or the product of constraints on order domains, encoded by the DOM (DOMAIN) feature.

Both DTRS and DOM are list valued features. The order of elements in the DOM list is the order that is seen in the phonology. The order of elements in the DTRS list need not be.

There is often a one-to-one correspondence between daughters and domain elements, as follows:

(9)

$$\begin{bmatrix} \text{DTRS} < [1], [2] > \\ \text{DOM} < [1], [2] > \end{bmatrix}$$

But sometimes a constituent has more domain elements than daughters. Kathol (2000) proposes that the German sentence in (8) has two daughters but three domain elements, as in (9).

(10) Liest Otto das Buch? (German)
reads Otto the book
'Is Otto reading the book?'

(11)

$$\begin{bmatrix} \text{DTRS} < [\textit{Otto}], [\textit{liest das Buch}] > \\ \text{DOM} < [\textit{liest}], [\textit{Otto}], [\textit{das Buch}] > \end{bmatrix}$$

It is commonly assumed that order domains are quite flat. It seemed reasonable to me to assume that the elements that participate in clausal agreement in Archi are members of the same order domain but not necessarily sisters, i.e. members of the same DTRS list. Hence the proposal that Archi clausal agreement is the result of a constraint on order domains.

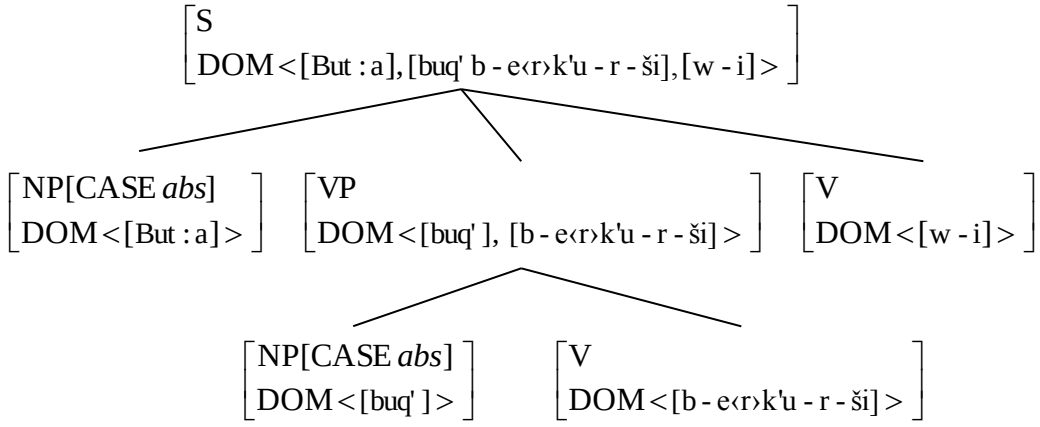
Biabsolutives

The obvious approach to take to biabsolutives is one in which the two absolutives are in different order domains. If (2) has the following order domains, the two absolutives will be no problem:

(12) [DOM <[But:a], [DOM <[buq'], [b-e‹r›k'u-r-ši]>], [w-i]>]

If these order domains are a simple reflection of the constituent structure, (2) will have something like the following analysis:

(13)



How should superficially similar examples with an ergative instead of the first absolutive such as (14) be analysed?

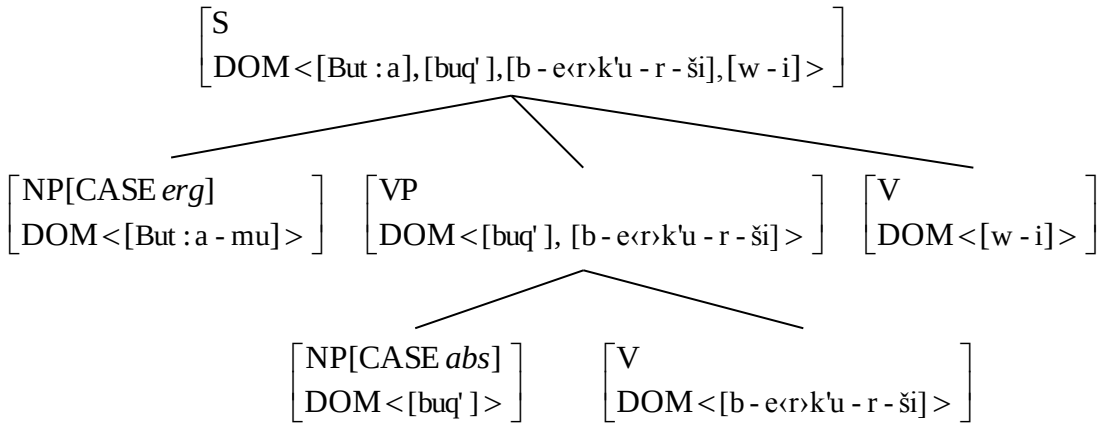
(14) But:a-mu buq' b-e‹r›k'u-r-ši b-i
Butta(I)-SG.ERG grain(III)[SG.ABS] III.SG-‹IPFV›sort-IPFV-CVB III.SG-be.PRS
'Butta is sorting grain. (=(2))

Here both *b-e‹r›k'u-r-ši* and *b-i* agree with the single absolutive. Within the approach assumed here, this entails that they must be in the same order domain and hence that (14) has the following order domain:

(15) [DOM <[But:a-mu], [buq'], [b-e‹r›k'u-r-ši], [b-i]>]

(14) might have a similar constituent structure to (2), giving the analysis in (16).

(16)



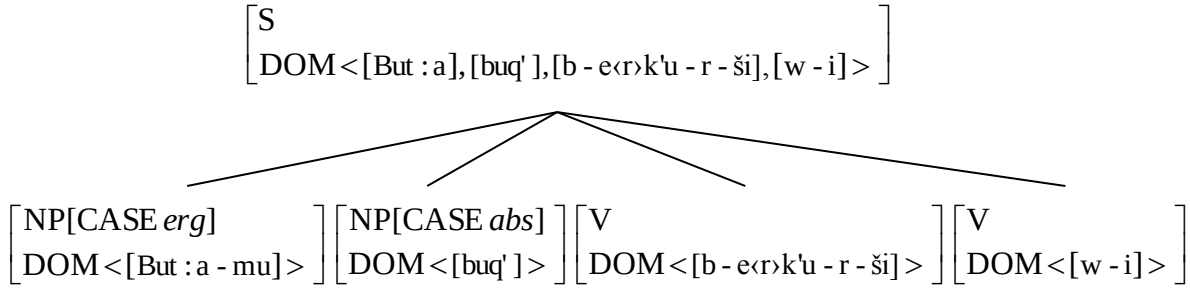
On this analysis, (14) has a contrast between its constituent structure and its order domains. The S has three daughters but four domain elements. The two members of the order domain of the VP become members of the order domain of its mother.

In (2) as analysed in (13) the two members of the order domain of the VP are 'compacted' to become a single element in the order domain of its mother.

This approach would require a stipulation that a VP headed by a converb with the suffix *–ši* is optionally compacted.

Alternatively the clausal order domain in (15) might be a simple reflection of the constituent structure, giving the analysis in (17).

(17)



Here the S has four daughters and four domain elements.

Structures like (13) and (16) require the forms of ‘be’ to have the following ARG-ST feature:

(18) [ARG-ST <[[1]NP, VP[SUBJ <[1]>]>]

This indicates that they take two arguments, an NP and a VP, and that the NP is the subject of the VP.

The structure in (17) requires *w-i* to have the following ARG-ST feature:

(19) [ARG-ST <[1]NP, V[ARG-ST <[1]> ⊕ L] ⊕ L>]

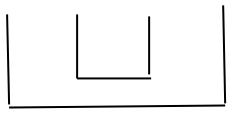
This indicates that it takes as its arguments an NP, a verb, of which the NP is subject, and whatever complements the verb requires. This situation, where a verb takes as an argument another verb and arguments that the latter requires, is known as argument composition.

Is there any evidence that biabsolutives and superficially similar examples with an ergative have different structures? I am not aware of any if agreement is the result of a constraint on order domains.

A problem

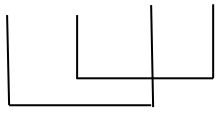
The approach to agreement outlined above has no problem with the agreement in (2), which takes the following form:

(20) [… X … Y … Z … W …]



We do not expect crossing agreement relations as in (21)

(21) [… X … Y … Z … W …]



This is what we have in the following:

(22) *lo χilibχ^{ʕ}i-j‹r›u bu-kan-ši e‹r›di
child(II)[SG.ABS] porridge(III)[SG.ABS]-EMPH‹II.SG› III.SG-eat.IPFV-CVB ‹II.SG›be.PST
akł’ kummu-s kilaw
meat(IV).[SG.ABS] [IV.SG]eat.IPFV-FIN than
‘The girl was eating the porridge, she likes it better than eating meat.’ (=(17))

(23) *lo jamu-t bank:a-j‹w›u oχ:a-li uqˁa
lad(I)[SG.ABS] this-IV.SG jar(IV)[SG.ABS]-EMPH‹I.SG› [IV.SG]take.PFV-CVB I.SG.leave.PFV
'*Having taken this jar, the lad left.' (=(19))

Here, the emphatic particles on the second absolutive agree with the first absolutive while the converbs agree with the first absolutive. But these examples are ungrammatical and hence no problem.

However, we also have crossing agreement relations in the following:

(24) tu-w q'onq' o‹r›kłin-ši w-i
that-I.SG.ABS book(IV)[SG.ABS] IV.SG.read‹IPFV›-CVB I.SG-be.PRS
dit:a‹t'›u
early‹IV.SG›
'He is reading a book early.' (=(13))

(25) tu-w q'onq' o‹r›kłin-ši w-i
that-I.SG.ABS book(IV)[SG.ABS] IV.SG.read‹IPFV›-CVB I.SG-be.PRS
ez
[IV.SG]1SG.DAT
'He is reading a book for me.' (=(15))

In (24) *w-i* agrees with *tu-w*, and *dit:a‹t'›u* agrees with *q'onq'*. Similarly in (25), *w-i* agrees with *tu-w* again, and *ez* agrees with *q'onq'*. Thus, in both, we have the situation in (21).

In both cases, *w-i* can also appear in sentence-final position, as the following show:

(26) tu-w q'onq' o‹r›kłin-ši dit:a‹t'›u w-i
that-I.SG.ABS book(IV)[SG.ABS] IV.SG.read‹IPFV›-CVB early‹IV.SG› I.SG-be.PRS

(27) tu-w q'onq' o‹r›kłin-ši ez w-i
that-I.SG.ABS book(IV)[SG.ABS] IV.SG.read‹IPFV›-CVB IV.SG]1SG.DAT I.SG-be.PRS

These examples are unproblematic, but (24) and (25) pose a serious problem for the analysis in (1).

The obvious solution is to state agreement in terms of constituent structure, i.e. as a relation between sisters, as follows:

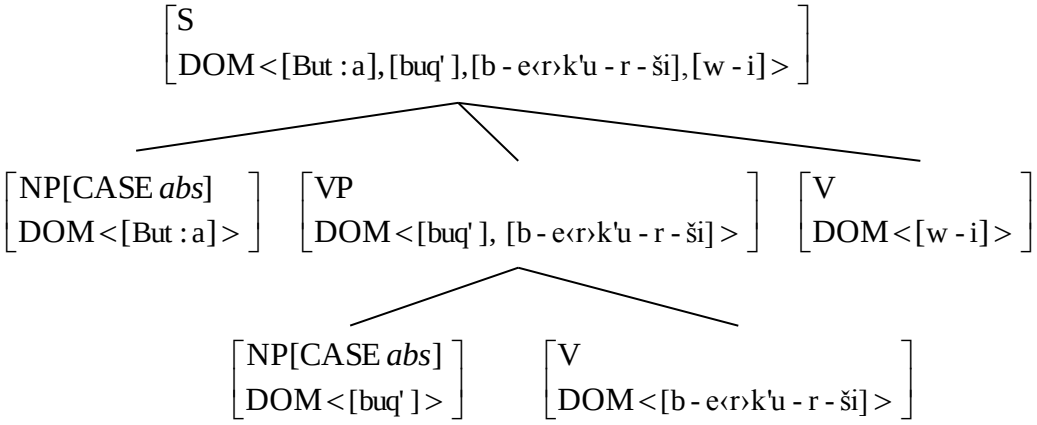
(28) An agreeing element agrees with an absolutive argument which is a sister.

I will also make the following assumption:

(29) VPs are not compacted.

Given these assumptions, (2) will have the following analysis:

(30)

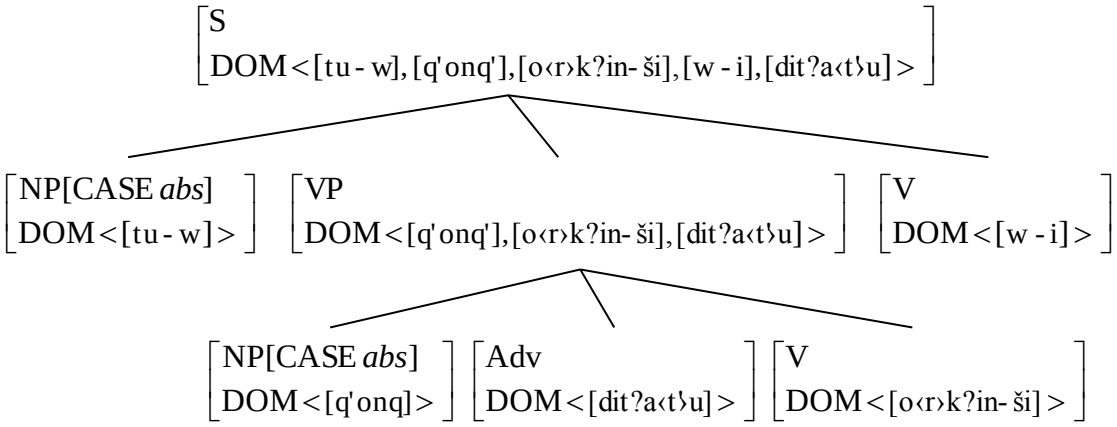


Here, *But:a* and *w-i* are sisters, as are *buq'* and *b-e‹r›k'u-r-ši* . Hence the agreement is expected. The fact that all four elements are members of the same order domain is unimportant if agreement involves sisters and not members of the same order domain.

Within this approach, (14) must have the flat structure in (17) given that both *b-i* and *b-e‹r›k'u-r-ši* agree with *buq'*.

Finally, we can propose the following analysis for (24):

(31)



Here the VP has three daughters and three domain elements. The S also has three daughters, but because the VP is not compacted it has five domain elements. Crucially, the domain elements of the VP are not a continuous sequence because *dit:a‹t'›u* follows *w-i*. The situation is rather like that in (11).

This approach requires fairly flat constituent structures. Whatever may be the case in other frameworks, there is no objection to such structures in HPSG.

REFERENCES

Kathol, A. (2000). *Linear Syntax*. Oxford: Oxford University Press.