A case of morphologically bound complementation in Abaza

Anastasia Panova (Higher School of Economics, Moscow)
anastasia.b.panova@gmail.com

1. Introduction

Morphologically bound complementation (the term was first introduced in [Maisak 2016: 837-838]) is a construction where a matrix predicate and the head of its sentential complement constitute a single verb morphologically but retain their syntactic and semantic independence, cf. (1).

(1) Abaza, Northwest Caucasian (textual example)
[*s-z-a-la-nəq̇ʷa-wa*]-***ʒə-j-š'a-***ṭ
[1SG.ABS-POT-3SG.N.IO-LOC-walk-IPF]-**LOC**-3SG.M.IO-**seem**-DCL
'it seemed to him that I could go there'

Similarly to standard complementation (e.g. Givón 1980), morphologically bound complementation can be divided into different types depending on the semantics of the matrix predicate.

- **manipulative predicates** ('order', 'cause', etc.) — *presumably, the most frequent type*

(2) Japanese (Shibatani 1990: 310)
*Hanako ga Taroo ni hon o yoma-**se**-ta*
Hanako NOM Taro AGT book ACC read-**CAUS**-PST
'Hanako made/had Taro read a book.'

- **aspect-modality predicates** ('want', 'start', etc.)

(3) Central Alaskan Yupik, Eskimo-Aleut (Miyaoka 2012: 1142)
*angute-m ane-**squma**-a arnaq*
man-ERG.SG go.out-**wish**-IND.3SG.3SG woman.ABS.SG
'The man wanted the woman to get out.'

- **perception-cognition-utterance predicates** ('know', 'say', etc.)

(4) Yaqui, Uto-Aztecan (Guerrero 2006: 178)
*Joan-Ø tuuka enchi siim-**maachia**-Ø*
juan-NOM yesterday 2SG:ACC go-**believe**-PRS
'Juan believes you to have left yesterday.'

The general idea of my study:

– to find out to what extent morphologically bound complementation can be treated as a regular subtype of complementation and morphological boundness as a parameter of its variation (cf. morphological boundness in serial verb constructions (Aikhenvald 2006)).

The purposes of the present paper:

– to illustrate the similarities and differences between standard and morphologically bound types of complementation in a particular language, i.e. Abaza;
– to discuss from an LFG perspective the problems and possible solutions of diagnosing morphologically bound complementation in Abaza and cross-linguistically.

The paper is based on the fieldwork data of Tapanta Abaza collected in the village Inzhich-Chukun (Abazinsky district, Karachay-Cherkes Republic, Russia) in 2017-2019. The study is supported by the Russian Science Foundation, grant No. 18-78-10128.

2. The basics of Abaza

Abaza (< Abkhaz-Abaza < Northwest Caucasian) is spoken by some 50 thousand people, mainly in the Karachay-Cherkess Republic in Russia and in Turkey. It is a morphologically ergative and consistently head-marking polysynthetic language.

2.1. Abaza verbal template

Table 1. The structure of the Abaza verbal complex (Arkadiev 2018: 4).

		preverbs								stem					endings				
–12	–11	–10	–9	–8	–7	–6	–5	–4	–3	–2	–1	0	+1	+2	+3	+4	+5	+6	+7
absolutive	subordinators, negation	repetitive	potential	applicatives	directional preverbs	locative preverbs	indirect object	ergative	negation	causative	sociative	root	directional suffixes	event operators	plural	aspect, tense	negation	past tense, mood	subordinators, force

Note the pronominal markers indicating verbal arguments and locative and applicative preverbs in the prefixal part of the verb, cf. (5).

(5) *a-wərba* *a-ʕʷara* ***j-tə**-pssʕa-ṭ*
DEF-eagle DEF-nest **3SG.N.ABS-LOC**-fly-DCL
'The eagle flew out of its nest.' (Klychev 1994: 140)

The suffixal part includes aspectual and evaluative suffixes and markers of tense, modality and clausal status, cf. (6).

(6) *d-ʕa-j-**χ-l-əw-n***
3SG.H.ABS-DIR-come-**RE-HAB-IPF-PST**
's/he used to frequently come back'

2.2. Strategies of complementation

To express sentential complementation, the following strategies are used:

- manner and locative relativization

(7) *sara* *d-**š**-ʕa-j-əz* / *d-**ʔa**-ʕa-j-əz* *ǯ'a-s-š'-əj-ṭ*
1SG 3SG.H.ABS-**REL.MNR**/**REL.LOC**-go-PST.NFIN LOC-1SG.ERG-be.surprised-PRS-DCL
'I am surprised that he came.'

- adverbial clauses

(8) *d-psə-**ta*** *də-l-ba-ṭ*
3SG.H.ABS-die-**ADV** 3SG.H.ABS-3SG.F.ERG-see-DCL
'She saw that he had died.' (Lit. She saw him, he having died.'

- masdar (action nominal)

(9) *w-pha* *də-w-ba-**ra*** *w-taq-əw-ma?*
2SG.M.IO-daughter 3SG.H.ABS-2SG.M.ERG-see-**MSD** 2SG.M.IO-want-PRS.NFIN-Q
'Do you want to see your daughter?' (Tabulova 1976: 215)

- purpose converb

(10) *hə-j-çʕa-ṗ* *araʔa* *h-tə-j-š'tə-**rnəs***
1PL.ABS-3SG.M.IO-ask-NPST.DCL here 1PL.ABS-LOC:ELAT-3SG.M.ERG-let.out-**PURP**
'we will ask [God] to let us out of here' (textual example)

- bare non-finite form (attested only with the verbs 'start' and 'get used to')

(11) *ĉəmla* *awəra* ***r-č'pa-wa*** *j-a-la-ga-ṭ*
staircase long **3PL.ERG-do-IPF** 3PL.ABS-3SG.N.IO-LOC-start-DCL
'They started to make a long staircase.' (textual example)

3. Complex predicates with *ʒəš'a* 'seem, think'

In Abaza grammars (e.g. Tabulova 1976: 209-210) *ʒəš'a* is described as a verbal suffix. However, wordforms with *ʒəš'a* in fact contain two predicates: the matrix verb, itself consisting of the root and a lexicalized locative preverb, and its sentential complement:

(12) [*d-ʕa-r-g-χ*]-***ʒə-l-š'a***-*n*
[3SG.H.ABS-DIR-3PL.ERG-carry-RE]-**LOC**-3SG.F.IO-**seem**-PST
'she thought that they were carrying him back' (textual example)

3.1. Differences from standard complementation

The morphological unity of the predicates in the construction with *ʒəš'a* leads to several differences from standard "analytic" complementation.

- reduced status of the incorporated predicate

No subordination markers — rare "bare non-finite form" strategy, cf. (13).

(13) a. [*awəj* ***d-ʕa-j***]-*ʒə-s-š'-əj-ṭ*
DIST **3SG.H.ABS-DIR-go**-LOC-1SG.IO-seem-PRS-DCL
'I think that s/he came.'

b. *[*awəj* *d-**š**-ʕa-j*]-*ʒə-s-š'-əj-ṭ*
DIST 3SG.H.ABS-**REL.MNR**-DIR-go-LOC-1SG.IO-seem-PRS-DCL

c. *[*awəj* *d-ʕa-j-**ta***]-*ʒə-s-š'-əj-ṭ*
DIST 3SG.H.ABS-DIR-go-**ADV**-LOC-1SG.IO-seem-PRS-DCL

Only partial TAM paradigm of the embedded predicate, cf. present tense of stative verbs in standard complementation (14) and in the construction with *ʒəš'a* (15).

(14) *rəwslan* *də-š-č'mazaʕʷ-**əw*** *z-dər-əj-ṭ*
Ruslan 3SG.H.ABS-REL.MNR-sick-**NPST.NFIN** 1SG.ERG-know-PRS-DCL
'I know that Ruslan is sick.'

(15) [*awəj* *d-gʷəbzəʕa*]-*ʒə-s-š'-əj-ṭ*
DIST 3SG.H.ABS-smart-LOC-1SG.IO-seem-PRS-DCL
'I think that s/he is smart.'

- the linear position of negation and adverbial relativization markers

In finite forms, negation is marked jointly by the affixes *g'(ə)-* and *-m* (16). When negation applies to a construction with *ʒəš'a* (17), the prefix *g'-* appears in the prefixal part of the whole construction, even when only its second part (the main clause) is negated.

(16) *sara* *d-ʕa-j-ta* ***g'-qa-s-ç-əw-m***
1SG 3SG.H.ABS-DIR-go-ADV **NEG**-LOC-1SG.ERG-believe-IPF-**NEG**
'I don't believe he came.'

(17) [*awəj* *d-**g'**-ʕa-j*]-*ʒə-s-š'-əw-**m***
DIST 3SG.H.ABS-**NEG**-DIR-go-LOC-1SG.IO-seem-IPF-**NEG**
'I don't think he came.'

In adverbial subordinate clauses formed via relativization, the relative prefix appears on the matrix predicate (18). In the construction with *ʒəš'a* the relative prefix appears to the left of the dependent verb stem, even though it modifies the matrix verb (19).

(18) *d-š-psə-z* ***anə**-l-ba*
3SG.H.ABS-REL.MNR-die-PST.NFIN **REL.TMP**-3SG.F.ERG-see
d-ĉ̣əwa *d-a-la-ga-ṭ*
3SG.H.ABS-cry.IPF 3SG.H.ABS-3SG.N.IO-LOC-begin-DCL
'When she saw that he had died, she started crying.'

(19) [*d-**an**-psə*]-*ʒə-l-š'a*
3SG.H.ABS-**REL.TMP**-die-LOC-3SG.F.IO-seem
d-ĉ̣əwa *d-a-la-ga-ṭ*
3SG.H.ABS-cry.IPF 3SG.H.ABS-3SG.N.IO-LOC-begin-DCL
'When she thought he had died, she started crying.'

3.2. Similarities with standard complementation

Despite the morphological unity, matrix and embedded predicates are clearly distinguished both syntactically and semantically, as in the other Abaza complementation strategies.

- independent argument structures

The predicate *ʒəš'a* has two arguments, cf. absolutive prefix (which is usually replaced by the incorporated verb) and indirect object prefix indexing the experiencer in (20). No restrictions on the argument structure of the embedded predicate are imposed, cf. a ditransitive verb in (21).

(20) ***j**-ʒə-**j**-š'-wə-n*
3SG.N.ABS-LOC-**3SG.M.IO**-seem-IPF-PST
'he thought like that'

(21) *sara* [***apχ'aga*** ***fatima***
1SG **DEF.book** **Fatima**
***j-lə-w**-t-wa-š*]-*ʒ-s-š'-wə-n*
3SG.N.ABS-3SG.F.IO-2SG.M.ERG-give-IPF-FUT-LOC-1SG.IO-seem-IPF-PST
'I thought you would give the book to Fatima.'

- independent modification

That the construction with *ʒəš'a* describes two distinct events is seen in their independent modification by tense markers (22), derivational affixes (23) and adverbs (22).

(22) *sara* ***jacə*** [*wara* ***waχ'ĉʷa*** *χabajz*
1SG **yesterday** 2SG.M **today** Khabez
*wə-c-**əw-š***]*-ʒ-s-š'-**əw-n***
2SG.M.ABS-go-**IPF-FUT**-LOC-1SG.IO-seem-**IPF-PST**
'Yesterday I thought you would go to Khabez today.'

(23) [*fatima* *wara* *a-hʷrapšʒa*
Fatima 2SG.M DEF-flower
*ʕa-wə-l-t-**χ***]*-ʒə-s-š'a-**l**-əw-n*
DIR-2SG.M.IO-3SG.F.ERG-give-**RE**-LOC-1SG.IO-seem-**HAB**-IPF-PST
'I often thought that Fatima returned flowers to you.'

The embedded clause can be negated independently from the matrix (24). For the negation of the matrix clause see (17) above.

(24) [*awəj* *də-**g'**-ʕa-**mə**-j*]*-ʒə-s-š'-əj-ṭ*
DIST 3SG.H.ABS-**NEG.EMP**-DIR-**NEG**-go-LOC-1SG.IO-seem-PRS-DCL
'I think that he didn't come.'

4. Formalization in LFG

I propose a formal representation of morphologically bound complementation in Abaza in Lexical Functional Grammar (LFG) (Dalrymple 2001; Bresnan et al. 2016), which can be extrapolated to similar cases in other languages.

4.1. Abaza mono- and polypredicate constructions in LFG

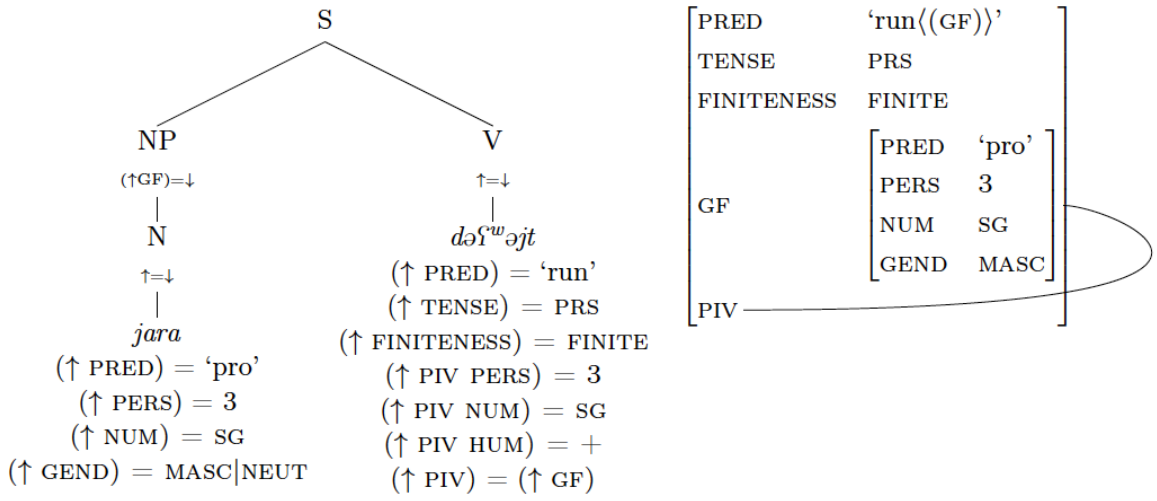
Basic features of Abaza in LFG:

- due to the lack of compelling evidence for clause-level configurationality I postulate flat c-structure of S;
- to reflect the morphological ergativity of Abaza I use the notion of PIVOT (PIV) (Falk 2006) instead of SUBJ; the S/A argument is coded as GF.

Consider the intransitive example (25) and its representation in LFG in (26).

(25) *jara* *də-ʕʷ-əj-ṭ*
3SG.M/N 3SG.H.ABS-run-PRS-DCL
'He is running.' (Tabulova 1976: 118)

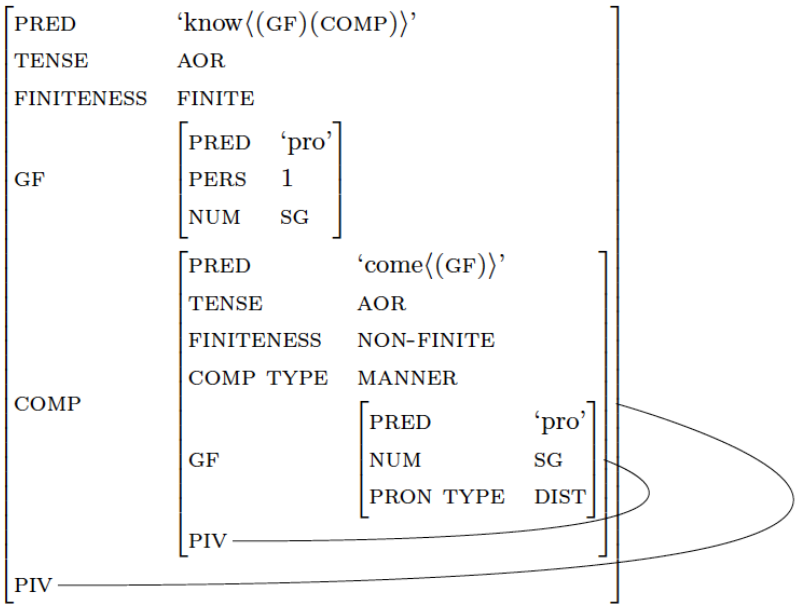
(26) c-structure and f-structure of (25)

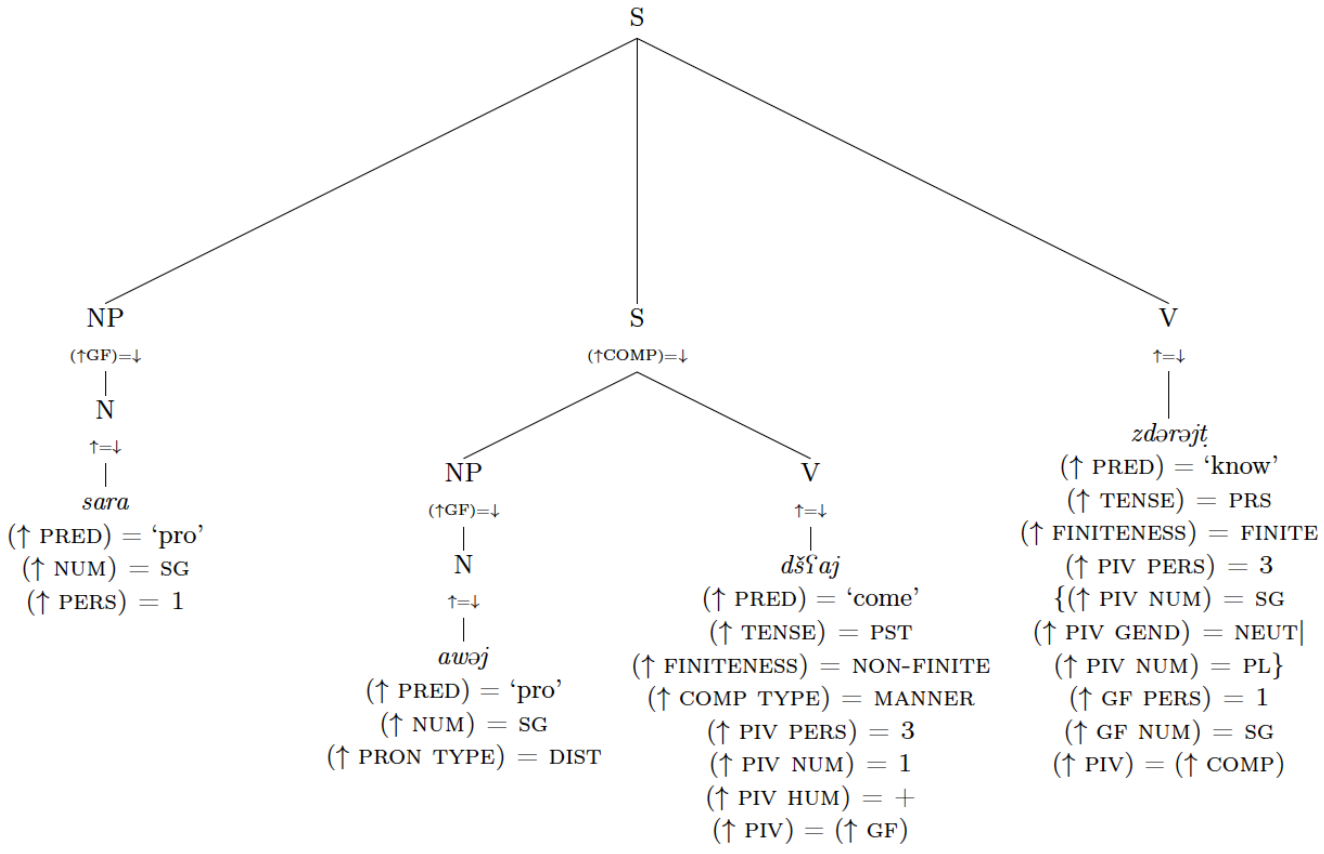


The most common complementation strategy with manner relativization is shown in (27)-(28).

(27) *sara* [*awəj* *d-š-ʕa-j*] *z-dər-əj-ṭ*
1SG DIST 3SG.H.ABS-REL.MNR-DIR-go 1SG.ERG-know-PRS-DCL
'I know that he came.'

(28) c-structure and f-structure of (27)



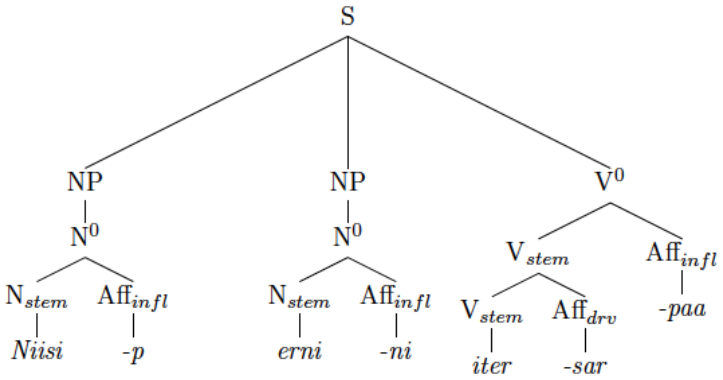


4.2. Morphologically bound complementation in LFG

The morphological boundness is encoded in c-structure, cf. a sublexical level LFG-analysis of morphologically bound complementation in West Greenlandic (29)-(30) proposed in the cited literature.

(29) West Greenlandic, Eskimo-Aleut (Manning 1994: 99)
Niisi-p *erni-ni* *iter-sar-paa*
Niisi-ERG son-SG.RFL(ABS) wake.up-try-IND.TR.3SG.3SG
'Niisi$_i$ tried to wake up his$_i$ son.'

(30) c-structure of (29) (Manning 1994: 100)

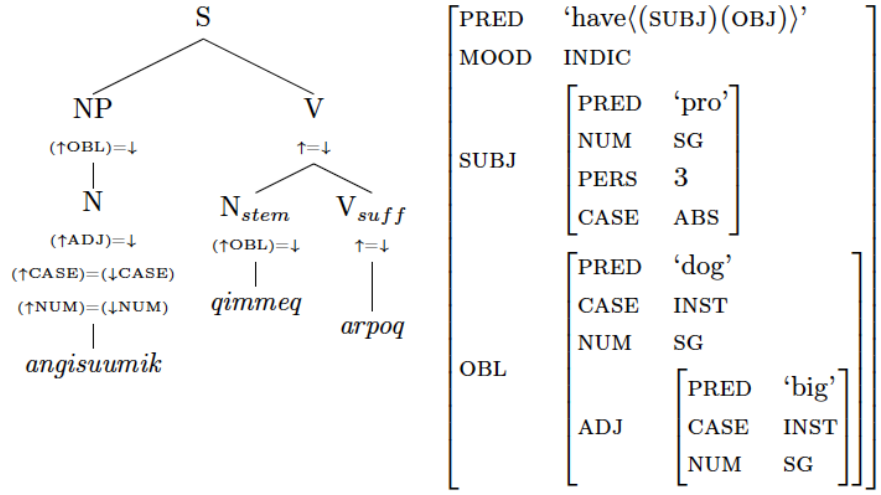


To apply this analysis to Abaza construction with *ʒəš'a*, I had to decide how the unshared arguments and other dependents (if any) of the incorporated predicate must be represented (in contrast to (29)-(30)).

For the analogous case of modifier stranding in noun incorporation, Bresnan et al. (2016) propose the c-structure with headless NP, cf. (31)-(32).

(31) West Greenlandic, Eskimo-Aleut (Sadock 1980: 309, cited by Bresnan et al. 2016: 366)
angisuu-mik *qimmeq-arpoq*
big-INST dog-have.IND.3SG
'He has a big dog.'

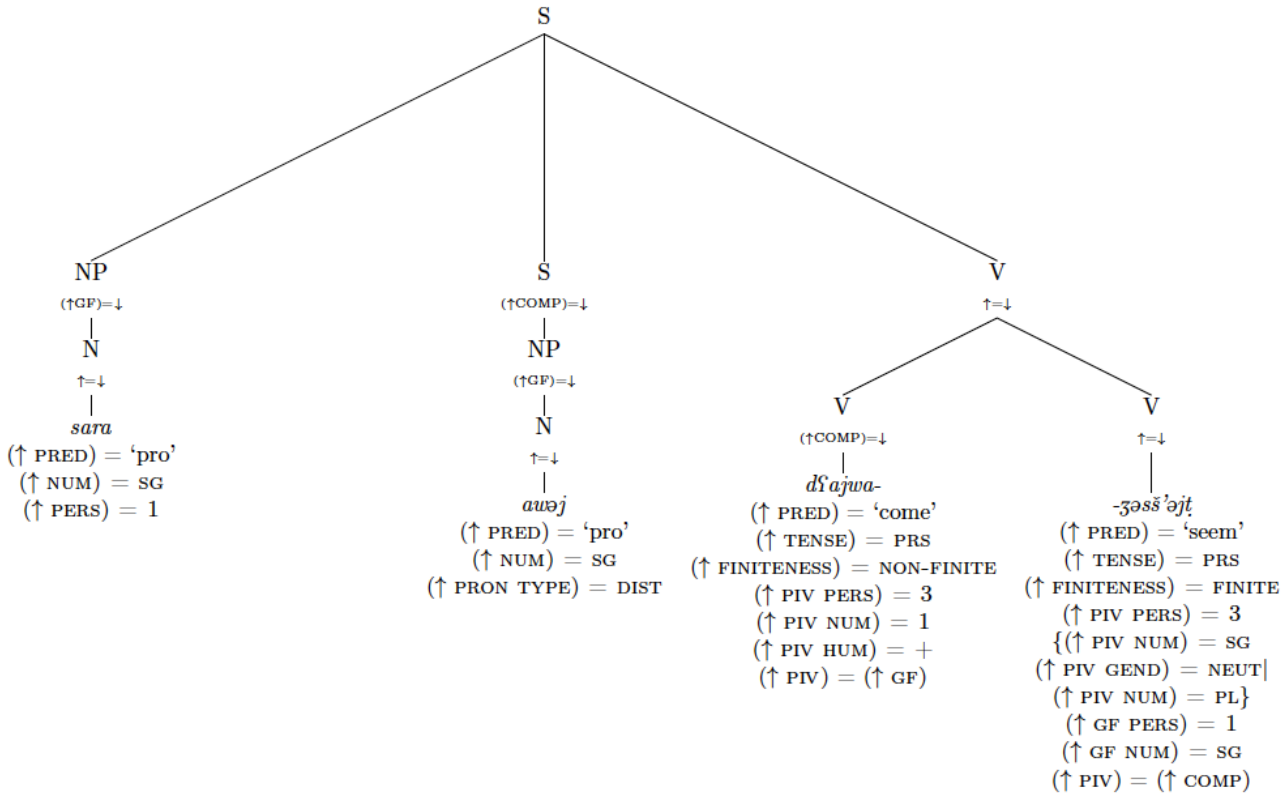
(32) c-structure and f-structure of (31) (Bresnan et al. 2016: 446)



In a similar fashion, I introduce an S phrase dominating the dependents of the incorporated predicate in c-structure of construction with *ʒəš'a* (33)-(34).

(33) Abaza, Northwest Caucasian
[*awəj* *d-ʕa-j-wa*]-***ʒə-s-š'***-*əj-ṭ*
DIST 3SG.H.ABS-DIR-go-IPF-**LOC**-1SG.IO-**seem**-PRS-DCL
'I think s/he is coming.'

(34) c-structure of (33)



Thus, morphologically bound complementation can be defined through the following restrictions on f-structure and corresponding c-structure:

(35) f-structure and c-structure of morphologically bound complementation

$$\begin{bmatrix} \text{PRED} & \text{`}matrix.predicate\langle((\text{X})\text{COMP})\ldots\rangle\text{'} \\ (\text{X})\text{COMP} & \begin{bmatrix} \text{PRED} & \text{`}embedded.predicate\langle\ldots\rangle\text{'} \end{bmatrix} \end{bmatrix}$$

$$\text{V} \rightarrow \underset{\uparrow \text{COMP} = \downarrow}{\text{V}} \text{ , } \underset{\uparrow = \downarrow}{\text{V}}$$

5. Discussion

The abstract definition of morphologically bound complementation given above may raise the following problematic issues in practice:

- a boundary between one-predicate and two-predicate structures

Sometimes languages distinguish complex constructions describing a single event vs. two events, cf. (36a)-(36b) with my analysis (37a)-(37b). Even though both constructions include a causative morpheme, semantically only (36b) describes a two-event situation.

(36) Central Alaskan Yupik, Eskimo-Aleut (Miyaoka 2012: 1136)

a. *tuqu-**t**-aa*
die-**CAUS**-IND.3SG.3SG
'he killed it'

b. *tuqu-**vkar**-aa*
die-**cause**-IND.3SG.3SG
'he let her/it die'

(37) f-structure of (36)

a.
$$\begin{bmatrix} \text{PRED} & \text{'kill } \langle(\text{SUBJ})(\text{OBJ})\rangle\text{'} \\ \text{MOOD} & \text{IND} \\ \text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'pro'} \\ \text{PERS} & 3 \\ \text{NUM} & \text{SG} \end{bmatrix} \\ \text{OBJ} & \begin{bmatrix} \text{PRED} & \text{'pro'} \\ \text{PERS} & 3 \\ \text{NUM} & \text{SG} \end{bmatrix} \end{bmatrix}$$

b.
$$\begin{bmatrix} \text{PRED} & \text{'cause } \langle(\text{SUBJ})(\text{XCOMP})(\text{OBJ})\rangle\text{'} \\ \text{MOOD} & \text{IND} \\ \text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'pro'} \\ \text{PERS} & 3 \\ \text{NUM} & \text{SG} \end{bmatrix} \\ \text{XCOMP} & \begin{bmatrix} \text{PRED} & \text{'die'} \\ \text{SUBJ} & \end{bmatrix} \\ \text{OBJ} & \begin{bmatrix} \text{PRED} & \text{'pro'} \\ \text{PERS} & 3 \\ \text{NUM} & \text{SG} \end{bmatrix} \end{bmatrix}$$

Without such a semantic contrast the two-predicate structure of a construction is often not obvious, cf. discussion on complex predicates in Urdu (Dalrymple et al. 1993; Love 2016).

- nominalizations

In languages with productive nominal incorporation the embedded predicate may be incorporated in a nominalized form and this case apparently is not complementation proper.

An ambiguous situation is found in Nivkh, where the suffix *-ḍ/-ṭ* simultaneously marks finiteness (Gruzdeva 1998) / indicative (Nedjalkov, Otaina 2013) and nominalization, cf. (38) with the dependent predicate incorporated into the matrix.

(38) Nivkh (Mattissen 2003: 153)
ñi [*j-əjm-nə-**ḍ***]*-aʁñ-ḍ*
1SG 3SG.U-know-FUT-**IND/NML**-want-IND/NML
'I want to know it.'

- purpose clauses

It is not fully clear whether constructions with markers of "motion-cum-purpose" (sometimes regarded as a type of a wider category of *associated motion* (Guillaume 2012)) are cases of morphologically bound complementation or differ from it in principled ways. Cf. the suffix *-nda* in Nanai, which can function as a matrix predicate (39a) on its own or just accompany a distinctly expressed verb of motion (39b).

(39) Nanai, Tungusic (Stoynova 2016: 90)

a. *gə* *əlbəsi-**ndə**-xən*
well swim-**MPURP**-PST
'well, (he) went to swim'

b. *sogdata-wa* *waa-**nda**-mi* *ənə-xə-či*
fish-ACC kill-**MPURP**-CVBSIM.SG go-PST-3PL
'(they) went to fish'

In this paper,

- I have shown that Abaza possesses an example of typologically rare "perception-cognition-utterance" type of morphologically bound complementation — the construction with an element *ʒəš'a* 'seem, think', which demonstrates both similarities with, and differences from, standard complementation strategies in Abaza
- for the construction with *ʒəš'a* I have proposed an LFG analysis which is comparable to other existing analyses of constructions with morphology-syntax mismatches and can be extrapolated to similar constructions in other languages
- finally, I have briefly discussed some typological parallels and a range of problems appearing in the analysis of potential examples of morphologically bound complementation.

Abbreviations

1 — 1st person; 2 — 2nd person; 3 — 3rd person; ABS — absolutive; ACC — accusative; ADV — adverbial; AGT — agentive; CAUS — causative; CVBSIM — simultaneous converb; DCL — declarative; DEF — definite; DIR — directional preverb; DIST — distal demonstrative; ELAT — elative; EMP — emphatic; ERG — ergative; F — feminine; FUT — future; H — human; HAB — habitual; IND — indicative; IO — indirect object; IPF — imperfective; LOC — locative preverb; M — masculine; MNR — manner subordination; MPURP — motion with purpose; MSD — masdar; N — neuter; NEG — negation; NFIN — non-finite; NML — nominalization; NOM — nominative; NPST — nonpast; PL — plural; POT — potential; PRS — present; PST — past; PURP — purposive; Q — question; RE — refactive; REL — relativization; RFL — reflexive; SG — singular; SUBJ — subjunctive; TMP — temporal subordination; TR — transitive; U — undergoer.

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