

Morphology-Syntax Interface Problem
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1 Multiple Agreement Slots: one controller

Targets may have more than one agreement slot, may mark agreement in up to four places in the word with one and the same controller. The examples which we have show only double exponence of agreement with a single controller.

A small number of finite verbs and a single adverb show multiple agreement with a single controller. (1) and (3) show this for finite lexical verbs, (2) for an adverb.

- (1) *maḥlo-wu* *b-immaaq:’u*
household(III)[SG.ABS]-and III.SG-leave<III.SG>PFV
... and left the household (to someone) (1)

- (2) *tu-w* *tej-me-s* *w-allej<w>u* *w-irχ^wni*
that.one-I.SG.ABS that.one.OBL.PL-OBL.PL-DAT I.SG-for.free<I.SG> I.SG-work.PFV
He worked for them for free. (3)

- (3) *χ it:a deq^ʃu* *d-immeḥr^ʃχ:u*
then road(IV)SG.LOC II.SG-remain<II.SG>.PFV
and then I stayed on the road. (4)

Issue One: Dealing with idiosyncratic agreement behaviour

It appears to be the case that all the participle forms which we have contain two agreement slots, hence “multiple agreement” might arise for the class of participles as a whole. I will assume that there is no lexical dimension to the agreement issue for participles. (4) appears to be an example of a participle (from an intransitive base) showing two agreement slots controlled by the same (absent) element and so belongs with (1) and (2) above. How this is viewed depends on how it fits with the general agreement behaviour of participles (see the examples below).

- (4) *duχij* *d-aq^ʃa-t:u-r?*
upstream II.SG-come.PFV-ATTR-II.SG
(Was it) when you were coming back? = (6)

2 Multiple Agreement slots: multiple controllers

All these examples seem to involve participles. They appear to be in structures modifying a nominal argument. In the absence of any further information, I am assuming that this is relevant.

In (5) the prefix on the participle agrees with the absolutive predicate (*cunning*) and the suffix agrees the absolutive argument *child* (of which the property is predicated).

- (5) *ja-r* *lo* *s:iḥru* *b-i-t:u-r* *d-i*
this-II.SG child(II)[SG.ABS] cunning(III)[SG.ABS] III.SG-be.PRS-ATR-II.SG II.SG-be.PRS
This girl is cunning. (Literally this female child is with cunning) = (2)

In (6) we have a participle from an ERG-ABS transitive. The prefix agrees with the ABS argument and the suffix with the ERG argument of which the property is predicated.

- (6) *lagi* *aca-l-kan* *kummul-u*
 stomach(IV)[SG.ABS] [IV.SG]fill-FIN-TEMP food(IV)[SG.ABS]-and
kunne-tu-t:u-r
 IV.SG.eat.PFV-NEG-ATTR-II.SG
 (who) never ate to the full [= she didnt eat food to fill her stomach] =(7)

In (7) we have a participle from an DAT-ABS transitive (*see*). The prefix agrees with the ABS argument and the suffix with argument of which the property is predicated (*girl*)

- (7) *cabu-t:u-t* *ʔ:an* *hanq:-a-ʒut*
 drink.PFV-ATTR-IV.SG water(IV)[SG.ABS] throat(IV)-IN-TRANS
ak:u-r-t:u-r
 [IV.SG]see-IPFV-ATTR-II.SG
 drunk water can be seen through her throat. [T1:6] =(8)

In (8) we have a participle from an intransitive verb (*go*). The prefix agrees with the (ABS?) argument of *go* and the suffix with element of which the property is predicated (*time*)

- (8) *jamu-t* *o<r>q^ʂa-t:u-t* *saʕat-li-t*
 this-IV.SG <II.SG>go.PFV-ATTR-IV.SG time(IV)-SG.OBL-SUPESS
 At the time of my going (9)

Issue 2: syntax of these participial constructions

3 Periphrasis and Multiple Agreement

Multiple agreement with a single controller arises in cases of verbal periphrasis, as in (9).

- (9) *zari* *no^ʂʂ* *darclirši* *etni-li* *b-i*
 1SG.ERG horse(III)[SG.ABS] to.post <III.SG>tie.PFV-CVB III.SG-be.PRS
 I tied horse to the post. (based on Kibrik, 1977: 195)

Issue 3: is verbal periphrasis morphological or syntactic in Archi?

4 Pronouns

The example in (10) shows a reflexive or logophoric pronoun agreeing also with the absolutive argument in the sentence.

- (10) *o<r>ka-li* *ju-w-mu* *ja-r* *onnol-ši*
 <II.SG>take.PFV-CVB this-I-SG.ERG this-II[SG.ABS] woman-ADVZ
ʒu-sa<r>u *ow-li* *oq-u*
 LOGOPH.OBL.I.SG-DAT.PCL<II.SG> [IV.SG]do.PFV-CVB wedding(IV)[SG.ABS]-and
qe^ʂdi-li
 <I/II.PL>sit.down.PFV-EVID
 Then he married her (took her as a wife for himself), they had a wedding and settled down.[T5:31] =(12)

Your (13) shows multiple agreement markers in the word coding features of the absolutive argument.

Your (14) shows multiple markers on a possessive, apparently coding the possessum, but its unclear without a fuller context.

5 LFG

The first set of data concerning multiple agreement shows that the same controller may be coded several times within the same morphological word. This also occurs with some of the pronouns.

- Inflectional morphology is not represented syntactically in LFG: there is no assumption that each agreement marker corresponds to a c-structure node (and its projection)
- LFG is not committed to any particular model of morphology: some descriptions associate f-description information directly with affixes (sometimes only as a convenient “shorthand”), others associate f-descriptions with description-names or morphological tags. These morphological tags are associated with the string by the morphological analyser (ie in the morphological component) Sadler and Nordlinger (2004), Nordlinger and Sadler (2006), Butt and Kaplan (2002), Andrews (2005)
- If a morpheme based view is taken, multiple morphemes are associated with the same f-description (unproblematic - the information unifies).
- Otherwise, the question is whether multiple exponence leads to multiple tags or not. This is a morphology internal question.

(11) R : is the relation that realizes the morphological features of a given f-structure as a string $f R w$

Sat : is the satisfaction relation holding between an f-structure and an f-description

L : is a lexical relation mapping between f-descriptions and description-names (morphological tags or m-features) see Seiss (2011), Sadler and Nordlinger (2004), Nordlinger and Sadler (2006).

Seq : is a relation between the D-names and the string

$R = Sat \circ L \circ Seq$ Butt and Kaplan (2002)

(12) walk: (\uparrow PRED) = ‘walk<(\uparrow SUBJ)>
 3: (\uparrow SUBJ PERS) = 3
 Sg: (\uparrow SUBJ NUM) = SG
 Pres: (\uparrow TNS-ASP TENSE) = PRES

Seiss (2011)

(13)

MFeat	Syn Info
{I, Sg }	((ADJ \uparrow) CONC GEND) = I ((ADJ \uparrow) CONC NUM) = SG
{II, Sg }	((ADJ \uparrow) CONC GEND) = II ((ADJ \uparrow) CONC NUM) = SG
{ Pl }	((ADJ \uparrow) CONC NUM) = PL

(14)

Category	MFeat	Syn Info
Attr Adj	{I, Sg }	@I.SG((ADJ \uparrow) CONC)
Attr Adj	{II, Sg }	@II.SG((ADJ \uparrow) CONC)
Attr Adj	{III, Sg }	@III.SG((ADJ \uparrow) CONC)
Attr Adj	{IV, Sg }	@IV.SG((ADJ \uparrow) CONC)
Attr Adj	{ Pl }	@PL((ADJ \uparrow) CONC)

Sadler (2011)

5.1 Multiple Marking

In the data that Seiss (2011) considered, M feats for TENSE can occur both on the classifier stem and in slot 6 in the verbal template and are subject to co-occurrence restrictions across these two slots. An account of how this is handled in the morphological component is given (the mapping L is not given, but it should not be problematic for the data described).

- (15) *ngirra-dharday-nu*
 3sgS.STAND(3).Fut-down-Fut
 I'll descend straight down Street notes: Seiss (2011)
- (16) *bam-ngkardu*
 3sgS.13.SNATCH(9).nFut-see
 He/she saw him/her Nordlinger fieldnotes:Seiss (2011)
- (17) *bam-ngkardu*: ba+cl13+3P+sg+Fut+ngkardu+LS+Fut2
- (18) *+Fut* { (↑ TNS-ASP TENSE) = FUT
- (19) *+Fut2* { (↑ TNS-ASP TENSE) = FUT

Note that the M feat needs to be disassociated from the syntactic (f-structure) feature. Information in some slots can pertain to either the SUBJ or the OBJ.

- (20) *+IsgDO* { (↑ SUBJ PRED) = 'PRO'
 (↑ SUBJ NUM) = SG
 (↑ SUBJ PERS) = 1 |
 (↑ OBJ PRED) = 'PRO'
 (↑ OBJ NUM) = SG
 (↑ OBJ PERS) = 1 }

Idiosyncratic Multiply Marked Agreement: The morphological description of these words will (or may) contain additional M feature or D-names.

5.2 Multiple Controllers

Clearly, there is nothing in general particularly problematic with word which reflect the features of more than one controller.

The examples which we have, involving participles, seem to involve the suffix showing external agreement with the NP head and the prefix showing internal (verbal) agreement with its privileged (normally (always?) ABS) argument. For example the participle in (8) would be associated with the following lexical description:

- (21) II.SG.*go*.PFV-ATTR-IV.SG { (↑ PRED) = 'GO< SUBJ >'
 (↑ TNS) = PFV
 @II.SG(↑ SUBJ IND)
 @IV.SG((ADJ ∈ ↑) CONC)

The @II.SG(↑ SUBJ IND) statement is precisely as is associated with verbal prefixes.¹

The @IV.SG((ADJ ∈ ↑) CONC) is as proposed for derived adjectives formed from verbs, adverbs, genitives and loan words (task 2).

The major issues which arise seem to be to do with the syntax. For example, the head which controls external (NP) agreement does not seem to be always present: it is e.g. not clear whether (6) is something like a relative clause.

¹NB reference to SUBJ here may be taken as shorthand for reference to whatever (subcategorised) argument is in ABS case (here the SUBJ of an intransitive verb).

5.3 Periphrasis

Agreement is not modelled in terms of c-structure functional heads in LFG. Accounts of syntactic periphrasis involving agreement on multiple heads includes Niño (1997) on Finnish and Frank and Zaenen (2002) on French.

(22) *e-n puhu-nut*
 NEG-1SG speak-PPART.SG
 I did not speak

(23) *ei ol-ttu sano-ttu*
 NEG.3SG PERF.PASS.PPRT.SG say-PASS.PPART.SG
 It has not been said (Colloquial Finnish)

F-descriptions associated with the individual words which co-define the same f-structure must be compatible. This is trivially so in the example we have (8).

The example in (10) (and similar) show reflexive (or logophoric) pronouns also reflecting the intrinsic features of ABS argument in the clause. Hence, just like the (dative?) pronouns we have already seen, these pronominal forms have their own intrinsic features and show agreement with a clausal argument. They do not appear to pose any issues beyond those already discussed — the anaphoric relation is established in the mapping to the semantics (and not in the f-structure), and so isn't relevant. My starting point would be to assume that the approach taken to the dative pronoun extends to these.

(24) *b-is χ:fele b-ez dit:a(b)u e(b)χni*
 I/II.PL-1SG.GEN guest(I)[PL.ABS] I/II.PL-1SG.DAT soon<I/II.PL> forget<I/II.PL>,PFV
 I quickly forgot my guests =MC1:10

(25) *b-ez/me* (↑ PRED) = 'PRO'
 (↑ CONC NUM) = SG
 (↑ IND NUM) = SG
 (↑ IND PERS) = 1
 (↑ CASE) = DAT
 ((GF ↑) GF1) = %AGRC
 (% AGRC CASE) = ABS
 @III.SG(% AGRC CONC)

I agree with whatever the Absolute argument is

(26) *LOGOPH.OBL.I.SG-DAT.PCL<II.SG>* (↑ PRED) = 'PRO'
 (↑ IND NUM) = SG
 (↑ IND PERS) = 1
 (↑ CASE) = DAT
 ((GF ↑) GF1) = %AGRC
 (% AGRC CASE) = ABS
 @II.SG(% AGRC CONC)

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