

Topic 1: The Domain Issue
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The notion that **agreement is defined in terms of syntactic domains** is not an architectural commitment in LFG. It also does not follow from any necessary substantive commitment in the theory. See for example Dalrymple and Nikolaeva (2011) on the role of information structure in agreement.

Syntactically determined agreement is generally taken to be defined in terms of f-structure relations - there is relatively little work on c-structure/linear structure issues in agreement but it is widely acknowledged in LFG work that such factors are clearly relevant (e.g. Kuhn and Sadler (2007); Dalrymple and Hristov (2010); Broadwell et al. (2011)).

1 Attributive Adjectives

(1)	<i>baka-t:u-t</i>	<i>ac:'i</i>	
	be.difficult-ATR-IV.SG	disease(IV)[SG.ABS]	
	bad disease		=MC:1

We need to know whether this is INDEX or CONCORD. Further data is needed. We will treat it as CONCORD.

(2)	<i>bala-t:u-t</i>	(↑ PRED) = 'DIFFICULT'
		((ADJ ∈ ↑) CONC NUM) = SG
		((ADJ ∈ ↑) CONC GEND) = IV

(3)	<i>ac:'i</i>	(↑ PRED) = 'DISEASE'
		(↑ CONC GEND) = IV
		(↑ CONC NUM) = SG
		(↑ CASE) = ABS

Note the use of the set membership symbol \in as attribute (recall that $\downarrow \in (\uparrow \text{ ADJ}) \equiv (\uparrow \text{ ADJ} \in) = \downarrow$), and the definition of inside-out expressions in (4)

- (4) $(af) = g$ holds if and only if g is an f-structure, a is a symbol, and the pair $\langle a, f \rangle \in g$.
 $(\epsilon f) \equiv f$, where ϵ is the empty string.
 $(saf) \equiv (s (af))$ for a symbol a and a (possibly empty) string of symbols s .

Templates

- (5) I.SG(P) \equiv (P GEND) = I
(P NUM) = SG
- (6) II.SG(P) \equiv (P GEND) = II
(P NUM) = SG
- (7) III.SG(P) \equiv (P GEND) = III
(P NUM) = SG
- (8) IV.SG(P) \equiv (P GEND) = IV
(P NUM) = SG

Templates are named functional descriptions, that is, named collections of equations. They allow generalizations to be stated and can be used as abbreviatory devices and called in lexical entries (or c-structure rules). Templates can be parameterised, so that they take an argument.

- (9) *bala-t:u-t* (\uparrow PRED) = 'DIFFICULT'
@IV.SG((ADJ \in \uparrow) CONC)
- (10) *ac:'i* (\uparrow PRED) = 'DISEASE'
(\uparrow CASE) = ABS
@IV.SG(\uparrow CONC)

This uses parameterised templates:

- **Template:**
IV.SG(P) \equiv (P GEND) = IV
(P NUM) = SG
- **Parameter:**
P = (ADJ \in \uparrow) CONC
- **Substitution:**
IV.SG((ADJ \in \uparrow) CONC) \equiv
((ADJ \in \uparrow) CONC GEND) = IV
((ADJ \in \uparrow) CONC NUM) = SG

2 Verbs

The verb agrees with the Absolutive argument, irrespective of whether that argument is SUBJ or OBJ. Discussion of EA agreement patterns in LFG includes Nordlinger (1998) (who uses inside out statements such as ((SUBJ \uparrow) OBJ) associated with the Ergative case marker on a direct argument) and Andrews and Manning (1999).

Absolutive subject:

- (11) *buwa* *d-awʕa*
 mother(II)[SG.ABS] II.SG-come.PFV
 Mother came =MC:2

Template Inclusion

- (12) $1(P) \equiv (P \text{ PERS}) = 1$
 (13) $2(P) \equiv (P \text{ PERS}) = 2$
 (14) $3(P) \equiv (P \text{ PERS}) = 3$
 (15) $3SGIV(P) \equiv @IV.SG(P)$
 $@3(P)$
 (16) $3SGIII(P) \equiv @III.SG(P)$
 $@3(P)$

Gender/Number	Person	PNG
I.SG	1	1SGI
	2	2SGI
	3	3SGI
II.SG	1	1SGII
	2	2SGII
	3	3SGII
III.SG	1	1SGIII
	2	2SGIII
	3	3SGIII
IV.SG	1	1SGIV
	2	2SGIV
	3	3SGIV

- (17) *buwa* (\uparrow PRED) = ‘MOTHER’
 (\uparrow CASE) = ABS
 @ 3SGII(\uparrow CONC)
 @ CONCIND

(18) CONCIND \equiv (\uparrow CONC) = (\uparrow IND)

This is equivalent to:

(19) *buwa* (\uparrow PRED) = 'MOTHER'
(\uparrow CONC GEND) = II
(\uparrow CONC NUM) = SG
(\uparrow CONC PERS) = 3
(\uparrow CONC) = (\uparrow IND)
(\uparrow CASE) = ABS

- The indication is that the verb shows only Gender and Number agreement. In the current LFG treatment the constraints therefore refer to the Gender/Number templates rather than the PNG templates.
- does this indicate that verbal agreement targets CONCORD rather than the more usual INDEX?
- More information is required to answer this question: for the moment I assume it is IND but only GN.

Verbose Verb Entry

(20) *d-awfa* (\uparrow PRED) = 'CAME< SUBJ >'
(\uparrow TNS) = PFV
(\uparrow SUBJ IND GEND) = II
(\uparrow SUBJ IND NUM) = SG

Templatic Entry

(21) *d-awfa* (\uparrow PRED) = 'CAME< SUBJ >'
(\uparrow TNS) = PFV
@II.SG(\uparrow SUBJ IND)

First and Second Person Pronouns

For example (3) I leave the GEND value of the 1st or 2nd person pronoun unspecified.

(22) *zon* (\uparrow PRED) = 'PRO'
(\uparrow CONC NUM) = SG
@ CONCIND
(\uparrow CASE) = ABS

Absolutive Object

An approach to variable controller paths is to use path definitions: the following from Otaguro (2006) adopts such a strategy (PAGRPATH is defined as a disjunction of grammatical functions).

- (23) *runs* (↑ PRED) = ‘RUN< SUBJ >’
 (↑ TNS) = PRES
 (↑ PAGRPATH) = %AGR
 (%AGR NUM) =_c SG
 (%AGR PERS) =_c 3

The same sort of factorisation can be obtained by using parameterise templates directly, without the use of local names.

- (24) *zari nošš darc’-li-r-š e(b)t’ni*
 1 SG.ERG horse(III)[SG.ABS] post-OBL.SG-CONT-ALL (III.SG)tie.PFV
 I tied the horse to the post =MC:4

- (25) *e(b)t’ni/tied* (↑ PRED) = ‘TIE< SUBJ OBJ >’
 (↑ TNS) = PFV
 (↑ SUBJ CASE) = ERG
 (↑ OBJ CASE) = ABS
 @III.SG(↑ OBJ IND)

(26) differs only in that the verb has DAT-ABS arguments rather than ERG-ABS arguments. We give the lexical entry for the verb.

- (26) *to-w-mi-s Ajša d-ak:u*
 that.one-1.SG-OBL.SG-DAT Aisha(II)[SG.ABS] II.SG-see.PFV
 He has seen Aisha =MC:5

- (27) *d-ak:u/tied* (↑ PRED) = ‘SEE< SUBJ OBJ >’
 (↑ TNS) = PFV
 (↑ SUBJ CASE) = DAT
 (↑ OBJ CASE) = ABS
 @II.SG(↑ OBJ IND)

3 Possessive Arguments of Nominals

Your examples (6) and (7) involve pronominal possessors of nominal heads.

- (28) *w-is ušdu*
 I.SG-1 SG.GEN brother(I)[ABS.SG]
 my brother =MC:6

- (29) *d-is došdur*
 II.SG-1 SG.GEN sister(II)[ABS.SG]
 my sister =MC:7

The starting point would be to assume that (i) these nominal heads subcategorise for a POSS argument and (ii) the nominal head requires its POSS argument to be marked in the GEN case.

Nominal Lexical Entry

(30) *ušdu/brother* (↑ PRED) = ‘BROTHER<POSS >’
 (↑ CASE) = ABS
 (↑ POSS CASE) = GEN
 @I.SG(↑ CONC)
 @CONCIND

recall that

I.SG(P) ≡ (P GEND) = I
 (P NUM) = SG

The possessor may be described verbosely as follows in (31)

(31) *w-is/my* (↑ PRED) = ‘PRO’
 (↑ CONC NUM) = SG
 (↑ IND NUM) = SG
 (↑ IND PERS) = 1
 (↑ CASE) = GEN
 ((POSS ↑) CONC NUM) = SG
 ((POSS ↑) CONC GEND) = I

Again, we can use template calls (here I have used them only for the agreement constraints not the intrinsic values, just for clarity), to abbreviate, replacing (31) with (32).

(32) *w-is/my* (↑ PRED) = ‘PRO’
 (↑ CONC NUM) = SG
 (↑ IND NUM) = SG
 (↑ IND PERS) = 1
 (↑ CASE) = GEN
 @I.SG((POSS ↑) CONC)

(33) *d-is/my* (↑ PRED) = ‘PRO’
 (↑ CONC NUM) = SG
 (↑ IND NUM) = SG
 (↑ IND PERS) = 1
 (↑ CASE) = GEN
 @I.SG((POSS ↑) CONC)

For clarity, I will show only CONCORD features as we are interested in NP internal agreement here.

The idea here is that a dative pronoun (in the relevant subparadigm) requires one of its co-arguments to be ABS and agrees with that argument. According to the description, in (9) the dative pronoun is not an obligatory argument but in (10) it is (perhaps the SUBJ). The account above assumes that in (9) the dative is probably some sort of (possibly non-thematic) benefactive argument, but does not rely on specifying the specific function born by the dative participant. GF and GF1 would be defined as a set of possible functions: this could be spelled out directly as a disjunction.

A similar approach could be taken to the adverbial cases, again assuming this process to be clause-bounded. There is some discussion of relevant phenomenon Simpson (1991) and Nordlinger (1998). So for the adverb *dit:a(b)u* in your example (12)

- (36) *dit:a(b)u/soon* (↑ PRED) = ‘SOON’
 ((ADJ ∈ ↑) GF1) = %AGRC
 (% AGRC CASE) = ABS
 @III.SG(% AGRC CONC)

5 Further Cases of Agreement with Clausal Arguments

As far as I can see, the notes from the first seminar are not specific about the structure of example (13).

- (37) to-w-mi ɬ:^wak-du-t duχriqʕa-k
 that.one-I.SG-SG.ERG near-ATR-IV.SG village(IV).SG.INTER-LAT
 e(b)qʕ'en deqʕ a(b)u
 (III.SG)up.to road(III)[AG.ABS] (III.SG)make.PFV
 He made (built) the road to the next village =MC:13

I am starting from the assumption that the postposition (which agrees with the clausal ABS argument) is simply the c-structure head of the oblique complement to *build*. On the other hand, it might be embedded as an argument to *road* - I don't remember how we settled this. So I am assuming for now that the structure is schematically something along the following lines:

- (38) [he] made [the road] [to [the next village]]
 SUBJ PRED OBJ OBL

If this is the case, then what we see is just that the head of the PP phrase is showing concordial agreement (III.SG) with the absolutive argument. In the absence of any further information, I would approach this in exactly the same way as the dative pronouns.

- (39) *ebq'en/up.to* (↑ PRED) = 'UP.TO⟨OBJ⟩'
 (↑ OBJ CASE) = INTER-LAT
 ((GF ↑) GF1) = %AGRC
 (% AGRC CASE) = ABS
 @III.SG(% AGRC CONC)

The final example is the following, in which the particle/intensifier *ej(b)u* shows agreement with the absolutive argument in the clause.

- (40) *arša horo:k ej(b)u iškul dabtu*
 archi.IN.ESS long.ago very(III.SG) school(II)[SG.ABS] open.PFV
 A school was opened in Archi very long time ago =MC:14

What the relationship is between *horo:k* and *ej(b)u*: does the latter modify the former, and do they form a constituent? I suppose the answer to both those questions is plausibly **yes**.

- (41) [a school] was opened [in archi] [very [long.ago]]
 SUBJ PRED OBL ADJ

So in (40) the agreement would (on this hypothesis) be showing on the modifier within the ADJUNCT, in contrast to (37) where it shows on the head of the structure. In each case, however, it is realised on the final element in the structure, which may be significant.

It's pretty hard to say anything concrete about the analysis of this example without knowing more about the internal structure of the adverbial phrase/modifier. If *ej(b)u* itself does not introduce a grammatical function then we could have an inside-out statement with a path out containing a single function, along the lines of the adverb case in (36). Can you combine *quickly* with - and in this case, do both elements exhibit ABS agreement, or is the agreement expressed only on the final element?

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