

Part V Morphological
Sketches of
Individual
Languages

23 Archi (Caucasian – Daghestanian)

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Introduction

Archi is one of the twenty-six Daghestanian languages which, together with the three Nakh languages, makes up the North-East Caucasian family. Traditionally, Archi is assigned to the Lezghian group of Daghestanian languages, though its position there is somewhat isolated.

Archi is spoken in the central part of Daghestan and borders on Avar and Lak. Its 1,000 speakers live in a single village, Archi, situated 2,300 meters above sea-level. There is no dialectal differentiation. Archi is an unwritten language, and it is not taught in schools. However, it is the main means of everyday communication for all age-groups. Members of the older generation generally also know Avar and Lak, and middle-aged and younger speakers know Avar and Russian (primary education is conducted in Avar and middle school education in Russian).

There are a number of grammatical descriptions of Archi: Dirr 1908, Mikailov 1967, Xajdakov 1967, Kaxadze 1979, as well as the four-volume grammar compiled by the author and his collaborators (Kibrik et al. 1977a, b; Kibrik 1977a, b).

For reasons of space it is impossible to give an exhaustive account of Archi morphology, but to a certain extent those who do not read Russian can fill in the gaps by consulting Kibrik 1993. For this reason I shall concentrate primarily on those morphological phenomena in Archi which to my mind best reflect the general principles underlying the language, with its exceptionally rich paradigmatic resources. In addition, the sketch will acquaint the reader with a number of typologically unusual morphological categories, such as the verbal category of 'commentative' (with its 'double tense and mood'), the admirative, the system of spatial forms in nouns, 'double case marking' in the possessive locative and so on.

Archi (together with such familiar languages as Latin, Greek and Russian) is one of the large class of languages with rich paradigmatic morphology,

in which a whole host of forms can be derived from a single root or stem. However, it has its peculiarities even within this class of languages. While in Russian a single noun produces about a dozen forms, the Archi noun produces more than eighty, and while a Russian verb root or stem gives rise to several hundred forms, in Archi it is more than a million (!). How does the language manage to generate such a record number of forms? What is the relationship between the measure of simplicity or complexity in a language and the size of its paradigms? To answer these and similar questions, let us look briefly at verbal and nominal inflection in Archi.

1 Verb inflection

The most striking features of Archi verbal morphology are the following:

- (a) A distinction between dynamic and stative verbs (unlike dynamic verbs, the statives have no category of aspect, and therefore no infinitive (see below), imperative or prohibitive). Stative verbs include predicates with meanings such as *L'an* 'love', *sini* 'know', *k,at* 'must', as well as words which would be adjectives in European languages, such as *libXI* 'shameful', *hiba* 'be good', *doI:z* 'be large'.
- (b) A contrast between a closed class of simple dynamic verbs (roughly 150), whose basic form consists of a morphologically unanalysable root, and an open class of complex verbs, which are analytic complexes consisting of a non-inflecting and an inflecting part, where the inflecting part is one of the simple verbs – e.g. *anX as* 'fight' (lit. 'fight make') *ʒazab Los* 'torment' (lit. 'trouble give').
- (c) An abundance of grammatical categories, including morphologically complex ones, many of which freely combine with each other.
- (d) The productive formation of a variety of synthetic non-finite forms, with their own inventory of grammatical categories: participles, *masdars* and *gerunds*.

1.1 Finite forms

Finite verb forms are obligatorily marked for aspect, tense, mood, polarity, class and number, as well as the categories of continuity and inferentiality, co-occurring with a number of forms. In addition, the Archi verb may be marked for evidentiality with the categories commentative and admirative.

Aspectual and class/number markers are the most tightly attached to the root. They are the focus of a large number of inflectional irregularities. Thus, the 150 simple verbs enter into more than 30 distinct conjugation classes. For simplicity of exposition I shall restrict my discussion to the more regular types.

(For transcription conventions, see n. 1, and for abbreviations used only in this chapter, see appendix on pp. 473–4.)¹

Dynamic verbs distinguish four aspects:

- durative (regular marker – discontinuous transfix *-r . . . -r*, e.g. ‘to lie down’ *aXa ~ a-r-Xa-r*, CONST:² ‘Event P is prolonged and without result.’
- perfective (regular marker *-u < *w*, e.g. *aX-u* AOR < **aX-a-w*): ‘Event P takes place before the time of utterance and has a result.’
- potential (marker *-qi*, suffixed to the perfective marker, e.g. *aX-u-qi*, FUT): ‘Event P may take place.’
- final (marker *-s < *s̄*, e.g. *aXa-s*, INF): ‘Event P must take place.’

Class-number markers (CNM) cross-reference the class and number of a noun in the nominative; that is, they function as agreement markers. Nouns distinguish four major and four minor classes (see section 2) and singular/plural.

Class	Number		Class	Number	
	SG	PL		SG	PL
I	w-/-w-	b-/-b-	V	w-/-w-	∅-/-∅-
II	d-/-r-	b-/-b-	VI	d-/-r-	∅-/-∅-
III	b-/-b-	∅-/-∅-	VII	b-/-b-	b-/-b-
IV	∅-/-∅-	∅-/-∅-	VIII	∅-/-∅-	b-/-b-

The CNM (usually) occupies a prefixal position in the durative and an infixal position (between the vowel and consonant of the root) in other aspects. For example, *w-a-r-Xa-r*, CONST 1 SG – *o-w-X-u*, AOR 1 SG³ – *o-w-X-u-qi*, FUT 1 SG, *o-w-Xa-s*, INF 1 SG.

The category of tense has three meanings, which combine regularly with the aspectual meanings of the conjugated verb:

- neutral (zero marker): ‘The aspectual meaning P is not related to the time of utterance.’
- present (formed analytically using the absolutive of the corresponding aspect and the auxiliary verb *i* ‘be’): ‘The aspectual meaning P is simultaneous with the time of utterance.’
- past (absolutive of the finite verb + auxiliary *edi* ‘was’): ‘The aspectual meaning P precedes the time of utterance.’

The durative and potential form the absolutive by suffixation of *-ši* (*arXar-ši*, DUR ABS, *aXuqi-ši*, POT ABS), the perfective, with *-li* (*aXu-li* PFTV ABS), the final is zero marked: *aXas-∅*,⁴ FIN ABS). In addition, the durative and perfective form the continual absolutive (marker *-mat*): *arXar-mat*, DUR CONTIN ABS, *aXu-mat*, PFTV CONTIN ABS. The continual absolutive adds the component ‘continues to take place’ to the standard aspectual meaning.⁵

Table 23.1 Tense-aspect forms of *aXas* 'lie down' (indicative, class III)

Aspect	Tense		
	Neutral (-Ø)	Present (ABS + i)	Past (ABS + edi)
Durative (-r-r)	b-a-r-Xa-r-Ø constative	b-a-r-Xa-r-ši b-i 1st present	b-a-r-Xa-r-ši e-b-di 1st imperfect
+iterative	—	b-a-r-Xa-r-si b-i-kir iterative	
+contin.	—	b-a-r-Xa-r-mat b-i 2nd present	b-a-r-Xa-r-mat e-b-di 2nd imperfect
Perfective (-u)	a-b-X-u-Ø aorist	a-b-X-u-li b-i 1st perfect	a-b-X-u-li e-b-di 1st pluperfect
+contin.	—	a-b-X-u-mat b-i 2nd perfect	a-b-X-u-mat e-b-di 2nd pluperfect
Potentialis (-qi)	a-b-X-u-qi-Ø future	a-b-X-u-qi-ši b-i inceptive	a-b-X-u-qi-ši e-b-di past inceptive
Finalis (-s)	a-b-Xa-s-Ø infinitive	a-b-Xa-s b-i debitive	a-b-Xa-s e-b-di past debitive

Sixteen tense-aspect forms are available from the combination of aspect, tense and continuity categories (see table 23.1).

A further tense-aspect form is the iterative, also derived analytically from the durative absolutive by means of the auxiliary verb *ikir*⁶ ('Event P repeatedly took place before the time of utterance'): *arXar-ši ikir* 'repeatedly lay down.'

Thus, the tense-aspect paradigm in the indicative contains seventeen basic elements. Their meanings are generally a straightforward composition of the meanings of their component categories. For example:

constative = 'event P is continuous, has no result, whatever the relation to the time of utterance':

- (1) *godo-r ĩ-ann-a iqlaw barsargat' b-a-r-sa-r.*
this-II⁷ woman-OBL.ERG always shawl.NOM III-wear-DUR.NEU
 'This woman always wears a shawl.'

present 1 = 'event P is continuous, has no result and is simultaneous with the time of utterance':

- (2) *to-w buq' b-e-r-k'u-r-ši w-i.*
he-I.NOM grain.NOM III-clean-DUR-ABS I-be⁸
 'He is cleaning grain.'

aurist = ‘event P took place and is finished’:

- (3) Xiġa te-jmaj q’enn-ib lagum Xab-u.
then they-OBL.PL.ERG two-PL song.ERG sing-PFTV.NEU
 ‘Then, the two of them started to sing a song.’

perfect 2 = ‘event P is completed; the result of P has begun to take place and continues at the time of utterance’:

- (4) zon ſanRi-m-a-š Xara: -si ja-t
I.NOM yesterday-OBL-IN-ABL from.behind-LAT this-IV
 biq’-m-a q’o-w-di-mat⁹ w-i.
place-OBL-IN.ESS sit-I-PFTV-CONTIN.ABS I-be
 ‘I have been sitting here since yesterday.’

inceptive = ‘event P begins to occur at the time of utterance’/‘Someone intends to perform some action’:

- (5) zari buwa-ġe-ra-k karRəra
I.ERG mother-OBL.PL-CONT-LAT letter.NOM
 t’al=a-b-u-qi-ši¹⁰ b-i.
send-III-PFTV-POT-ABS III-be
 ‘I intend to send a letter to my parents.’

debitive = ‘at the time of utterance it is necessary that event P occur (at some time)’:

- (6) un lagum Xabu-s i.
you.ERG song.NOM sing-FIN IV-be
 ‘You should sing a song.’

The only form which is not used in the position of an independent predicate is the infinitive. It expresses the purpose of an action, or an action which must be performed.

- (7) but’uġu-t č’at Xo-t’u hani wa-s bo-s?
other-IV word.NOM IV-find.PFTV-NEG that you-DAT say-FIN.NEU
 ‘Did you not find another word, which you might say?’

Forms denoting an event occurring before the time of utterance (i.e. past-tense and aorist forms) combine with the category of inferentiality, an evidential category (specifying the source of the information). The positive value of this category (marked with the suffix *-li*) is ‘the speaker and/or hearer did not directly witness event P prior to the time of utterance’.

- (8) to-w dase:ni sin-t’u uqġa-li¹¹ e-w-di-li.
he-I somewhere know-NEG I.go.PFTV-ABS be-I-INFER
 ‘He went somewhere unknown.’

All tense-aspect forms (except the infinitive) combine with the category of polarity, whose positive value (‘it is the case that P’) is unmarked, and whose

Table 23.2 Partial paradigm of *aXas* 'lie down'

Category	+ polarity		- polarity
	I class	II class	I class
Indicative			
constative	w-a-r-Xa-r	d-a-r-Xa-r	w-a-r-Xa-r-t'u
present	w-a-r-Xa-r-ši w-i	d-a-r-Xa-r-ši d-i	w-a-r-Xa-r-ši w-i-t'u
1st imperfect	w-a-r-Xa-r-ši e-w-di	d-a-r-Xa-r-ši e-r-di	w-a-r-Xa-r-ši e-w-di-t'u
inferential 1st imperfect	w-a-r-Xa-r-ši e-w-di-li	d-a-r-Xa-r-ši e-r-di-li	w-a-r-Xa-r-ši e-w-di-li w-i-t'u
aoist	o-w-X-u	a-r-X-u	o-w-X-u-t'u
inferential aoist	o-w-X-u-li	a-r-X-u-li	o-w-X-u-li w-i-t'u
perfect	o-w-X-u-li w-i	a-r-X-u-li d-i	o-w-X-u-li w-i-t'u
future	o-w-X-u-qi	a-r-X-u-qi	o-w-X-o:-t'u
inceptive	o-w-X-u-qi-ši w-i	a-r-X-u-qi-ši d-i	o-w-X-u-qi-ši w-i-t'u
infinitive	o-w-Xa-s	a-r-Xa-s	—
debitive	o-w-Xa-s w-i	a-r-Xa-s	o-w-Xa-s w-i-t'u
Interrogative			
constative	w-a-r-Xa-r-a	d-a-r-Xa-r-a	w-a-r-Xa-r-t'u-ra
present	w-a-r-Xa-r-ši w-i-ra	d-a-r-Xa-r-ši d-i-ra	w-a-r-Xa-r-ši w-i-t'u-ra
Imperative	w-aXa	d-aXa	—
Prohibitive	—	—	w-a-r-Xa-r-(di)-gi
Optative	o-w-X-u-ťan	a-r-X-u-ťan	o-w-X-u-t'u-ťan

negative value ('it is not the case that P') is realized by the suffix *-t'u*. See the examples in table 23.2.

The majority of different moods are based on tense-aspect forms:

- indicative (the unmarked mood; for examples, see above and table 23.1)
 = 'Speaker believes that proposition P is true.' Combined with negation,
 the indicative means: 'It is the case that it is not the case that P.'
 interrogative (marker *-a/ra*): 'Speaker asks whether it is the case that P.'

(9) wa-ť-iš ho:nu Xer b-i-ra?
thou-SUPER-ABL some.kind.of use.NOM III-be-INTERR
 'Is there any use from you?'

dubitative (marker *-čugu*, combines with all non-evidential forms):
 'Speaker wants to know whether it is the case that P' or 'Speaker doubts
 whether it is the case that P'.

- (10) *šanRi barq ba-sa-s e-b-di-čugu.*¹²
yesterday sun.NOM III-seize-FIN be-III-DUB
 ‘I wonder whether there should have been a solar eclipse yesterday.’
- (11) *e-b-di-čugu šanRi barq ba-sa-s.*
be-III-DUB yesterday sun.NOM III-seize-FIN
 ‘There should hardly have been a solar eclipse yesterday.’

In the second interpretation the verb in the dubitative form is fronted, and the intonation contour is falling.

approbative (marker *-di*, used in contrastive sentences and various types of conditional clause): ‘Event P is true and speaker is positively disposed to P, but in addition to P there is another event contradicting it.’

- (12) *zon ja-b meš-e w-a-e-Xa-r-di,*
I.NOM this-III mattress-OBL.IN.ESS I-lie-DUR.NEU.APPR
*han u-qi*¹³ *išik qlanna-ťu?*
what IV.do.PFTV-POT.NEU here soft.NEU-NEG
 ‘I may well lie on this mattress, but what will I do if it isn’t soft?’

conjunctive (marker *-kini*): ‘Speaker wants event P to be the case but doubts that P is the case.’

- (13) *un ošoš-ennu olo-ma-ši*¹⁴ *w-a-rr-Li-r-kini!*
thou.NOM sometimes-even we.GEN-LOC-LAT I-come-DUR.NEU-CONJ
 ‘If only you would come to us just occasionally!’

possibilitive (derived analytically from the tense-aspect form of a lexical verb¹⁵ (with obligatorily the evidentiality marker, if the given form combines with it, see above) and the auxiliary verb *Xos* ‘to be situated’, in the future *Xo-qi*): ‘Speaker supposes that it is the case that P.’

- (14) *to-w X̄_oaḱ-a-ši*
he.NOM-I forest-OBL.IN-LAT
quḷa-li Xu-qi.
I.go.PFTV.NEU-INFER be.situated.I.PFTV-POT.NEU
 ‘He probably went into the forest.’

A number of moods are derived not from tense-aspect forms but from the root or the aspectual base, including:

imperative (derived only from dynamic verbs and usually coincides with the bare base form; the basic position of the class-number marker is prefixal, as in the durative): *w-aXa* ‘lie down (sg.)’. Non-agentive verbs (which do not take an ergative subject) have a suffixal position for the plural marker (*-r*): *aXa-r*¹⁶ ‘lie down (pl.)’.

cohortative – a polite imperative, formed from the imperative by the addition of the marker *-su*: *w-aXa-su* ‘do lie down’.

prohibitive (formed from the durative base with the marker *-(di)gi*): *w-a-r-Xa-r-(di)gi* ‘don’t lie down’.

optative (derived from the perfective base with the marker *-tan*, and having both a positive and a negative form): ‘Speaker wants event P (not) to happen and presumes that the hearer wants this too.’

- (15) un noL'-a-ši uqIa-tan?
 thou.NOM home-OBL.IN-LAT I.come.PFTV-OPT
 ‘Shouldn’t you be going home?’

Let us look finally at two evidential verb categories: the commentative and the admirative.

The commentative, which is a morphological means of expressing indirect speech, is derived from any finite verb form by suffixation of *-er*. Its meaning is: ‘Someone A says that P,’ where A is a person whose direct speech is introduced by means of the commentative form. For instance: *warXar*, CONST, ‘he lies down’ – *warXar-er* ‘someone says that he lies down’; *warXargi*, PROH, ‘don’t lie down’ – *warXarg-er* ‘someone says: don’t lie down’; *owXuqisi widi*, PRES, APPR ‘he indeed is lying down’ – *owXuqisi wid-er* ‘someone says that he indeed is lying down’.

The commentative itself inflects for tense. The synthetic form realizes the neutral/present tense, while the past tense is formed analytically: *warXar-er-ši ewdi* ‘someone said that he was lying down’. The past-tense form combines with inferentiality: *warXar-er-ši ewdi-li* ‘apparently, someone said that he is lying down’. A number of marked mood types can also be formed from the commentative (where ‘unmarked’ refers to the indicative): for instance, *warXar-er-a*, INTERR, ‘does someone say that he is lying down?’; *warXar-er-čugu*, DUB, ‘it seems that someone says that he is lying down’. Thus, the categories of tense, mood and evidentiality can be realized twice: on the lexical verb and by the meaning of ‘speaking’.

The admirative occupies an intermediate position between a fully and a partially grammaticalized analytical complex. Its meaning is: ‘Someone becomes a witness to part of, or the result of, an event P.’ The admirative is derived by combining the absolute (in the durative, perfective or potential) or the infinitive of a lexical verb with the auxiliary verb *Xos*, lit. ‘to find, discover’, in one of the neutral tense forms (see table 23.3).

The forms of the admirative (especially the first two lines of the table) are structurally similar to the analytical forms of the present and past tense (cf. the auxiliary verb *i – edi*). It is also significant that negation, too, in the admirative is expressed on the auxiliary: *wirX_oinši wit’u* ‘he isn’t working’ – *wirX_oinši Xut’u* ‘they discovered that he isn’t working’.

At the same time the auxiliary has its own addressee complement marked in the dative (the person who discovers that P):

Table 23.3 Formation of admirative

Verb form of <i>Xos</i>	Aspect of lexical verb			
	<i>DUR</i>	<i>PFTV</i>	<i>POT</i>	<i>FIN</i>
CONST	-ši + Xor -mat	-na + Xor -mat	-ši + Xor	-∅ + Xor
AOR	-ši + Xo -mat	-na + Xo -mat	-ši + Xo	-∅ + Xo
FUT	-ši + Xoqi -mat	-na + Xoqi -mat	-ši + Xoqi	-∅ + Xoqi
INF	-ši + Xos -mat	-na + Xos -mat	-ši + Xos	-∅ + Xos

- (16) b-ez qlin e-b-ku-mat bo-Xo-r
 III-I.DAT bridge.NOM fall-III-PFTV-CONTIN.ABS III-ADM-DUR
 'I discover that the bridge continues to be in a state of collapse.'

In this respect, *Xos* behaves like an independent lexical verb, rather than an auxiliary. Space does not permit discussion of the other interesting morpho-syntactic properties of this construction.

1.2 Non-finite forms

The following are the non-finite verb forms: the masdar (deverbal nominal), participle (deverbal adjectival), gerund and absolutive (deverbal adverbial). While the finite verb forms make up the predicate of a main clause, the non-finite representations are used when the verb is the predicate of a dependent proposition: the verb is thereby transformed into that surface structure part of speech to which the syntactic node of the constituent expressing the given proposition relates. Consequently, there is every reason to consider these morphological processes as inflectional and to regard the derived representations as components of the verb's paradigm.

The masdar can be derived by suffixation of *-kul* from any tense-aspect form of the indicative (except for inferential forms), including negative and/or commentative forms (see table 23.4). In addition, it is possible to derive the masdar from the basic stem/root by means of the affix *-mul/t'i*¹⁷ (with truncation of the right edge of the stem *-V#* or *Vn#* or *-bos#*). The class-number marker then occupies the prefix position (cf. the imperative). Examples:

Table 23.4 Examples of masdars and participles of the verb ‘work’

Meaning	Finite form	Masdar	Participle
CONST, I	wir \bar{X}_o in	wir \bar{X}_o in-kul	wir \bar{X}_o in-nu
CONST, I, COMM	wir \bar{X}_o iner	wir \bar{X}_o iner-kul	wir \bar{X}_o iner-tu
IMPF-1, I	wir \bar{X}_o inši ewdi	wir \bar{X}_o inši ewdi-kul	wir \bar{X}_o inši ewdi-tu
INF, I	wir X_o mus	wir X_o mus-kul	wir X_o mus-du
AOR, II, NEG	dir X_o nit'u	dir X_o nit'u-kul	dir X_o nit'u-tu-r

aXas ‘to lie down’ – stem *aXa* – masdar, III *b-aX-mul*
irX_omus ‘to work’ – stem *ir \bar{X}_o in* – masdar, I *w-irX_o-mul*
aIʔ-bos ‘to call’ – stem *aIʔ-bo* – masdar¹⁸ *aIʔ-t'i*.

The masdar, like any noun, has a full set of case inflections.

The participle is derived from any tense-aspect form of the indicative (including the commentative) by suffixation of *-tu*, after which follow the class-number markers, as with all adjectives; see table 23.3. The participle can also have the quantificational affix *-en*, which appears before the adjectivizing marker: e.g. *wir \bar{X}_o in-nu* ‘working’ – *wir \bar{X}_o in-en-nu* ‘everyone who is working’.

Like all adjectives, the participle can be nominalized (by conversion), and inflects for case and number.

Gerunds are functionally equivalent to an adverbial subordinate clause expressing time, reason, purpose, condition, concession, contrast and place. They too are derived from finite tense-aspect forms (generally the indicative), including the commentative. At the same time particular types of gerunds may have specific restrictions (usually semantically motivated) on the set of basic forms (these restrictions are omitted for reasons of space). For examples of gerunds see table 23.5.

The absolutes are functionally similar to co-ordinate clauses: in one of the clauses (the communicatively backgrounded, peripheral clause) the verb appears in the absolute form.¹⁹ The absolutes are derived from aspectual stems (with or without negation) and express the meaning of simultaneity of the secondary and primary propositions; the meaning of simultaneity is here determined by a particular component of the aspectual meaning (e.g. simultaneity of result in the case of the perfective). Examples of absolutes are provided in table 23.6. As can be seen, positive and negative forms in the durative and potential are in complementary distribution (the negation of the durative is a form derived from the potential, which can be justified semantically). In the perfective the negative absolute is formed by a cumulative affix *-t'aw* (which in general is untypical of Archi), and the positive has two forms, one in *-li*, the other in *-na*. The first is used when the proposition expressed in the main clause relates to the real world (referring to past or present), and the

Table 23.5 Examples of gerunds of the verb ‘work’ (class I)

Marker	Basic form	Gerund	Meaning
-ṭa	CONST	wirX ₀ in-ṭa	when he works
	FUT, COMM	wirX ₀ niqer-ṭa	when he says that he will work
-ejkun	CONST	wirX ₀ in-ejkun	while he works
-ṭan	FUT	wirX ₀ niqi-ṭan	before working
-kan	INF	wirX ₀ mu-l-kan	until he starts working
-m(u)Xur	PERF	wirX ₀ nili wi-mXur	when/because he worked
-e:rši	CONST	wirX ₀ in-e:rši	on account of the fact that he works
-ṭut	INF	wirX ₀ mu-l-ṭut	in order not to work
-ṭus	PRES	wirX ₀ inši wir-ṭus	to find out whether he is working
-enč' iš	INC	wirX ₀ niqiši wi-nč'is	if he will work
-mat	INC	wirX ₀ niqiši wi-mat	although he will work
-šaw	IMPF-1	wirX ₀ inši ewdi-šaw	although he was working
-e:na	IMPF-1, INFER	wirX ₀ inši ewdil-e:na	despite the fact that he was working
-ma	AOR	wirX ₀ ni-ma	where he worked
-ma-k	AOR	wirX ₀ ni-ma-k	to the place where he worked
-ma-š	AOR	wirX ₀ ni-ma-š	from the place where he worked

Table 23.6 Absolutives of the verb ‘work’

Polarity/ continuity	Aspectual meaning			
	DUR	POT	FIN	PFTV
-NEG	wirX ₀ in-ši	—	wirX ₀ mus-ši	wirX ₀ ni-li/na
+NEG	—	wirX ₀ na:-t' u-ši	wirX ₀ mus-t' u-ši	wirX ₀ ni-t'aw
+CONTIN	wirX ₀ im-mat	—	—	wirX ₀ ni-mat
+NEG, +CONTIN	—	—	—	wirX ₀ ni-t' u-mat

second is used when speaking of hypothetical events (the main verb is in the potential aspect, the constative or the prohibitive). The continual absolutive is derived only from the durative and perfective (affix *-mat*). It adds the semantic component 'to begin and continue to take place'. The negative continual absolutive is possible from non-resultative verbs of instantaneous action (the example in table 23.6 is for illustration only).

1.3 *The size of verb paradigms*

As can be seen from the foregoing description, the Archi verb paradigm is rather large. Writing out all the verb forms would be involved, to say the least. For this reason it is necessary to describe the paradigm by means of the procedure which generates it, enumerating all the theoretically possible forms. Naturally, the majority of these forms exist solely as a theoretical possibility; only a tiny fraction of them are encountered in everyday speech with any frequency. However, under appropriate communicative, semantic and grammatical circumstances, any form with a licit assembly of semantic and grammatical categories can be constructed and will be perceived as entirely normal. It is therefore interesting to calculate the maximum number of theoretically available forms that can be derived from a single verb root. (Naturally, analytical forms are treated on a par paradigmatically with the synthetic forms.)

Since the number of forms is markedly increased by the class-number markers and the commentative, which enjoy the greatest freedom of co-occurrence, we will leave these forms, and also the case/number forms of deverbal nominals, out of our calculations in the first instance.

1.3.1 *Forms excluding CNM and COMM*

Mood. In the indicative and interrogative there are 47 forms each (33 non-evidential \pm negation and 14 evidential \pm negation). The dubitative, approbative and conjunctive each have 33 forms. The possibilitive provides 23 forms. The irregular moods give a total of 7 forms. This comes to a total of 223 finite forms.

The admirative (\pm negation) gives $24 \times 2 = 48$ forms. Taking evidentiality into consideration ($6 \times 2 = 12$), we get 60 forms for the admirative.

The masdar may have 34 forms (33 are formed from tense-aspect stems and one from the root).

The participles are derived from any of the 47 tense-aspect forms, and can be assigned the meanings of generality and class number²⁰ (five distinct class-number suffixes), that is $47 \times 2 \times 5 = 470$.

The gerunds (taking into account co-occurrence restrictions on their derivation) number 929 forms.

The absolutives have 9 forms.

Thus, the verb forms just listed total 1725 (= 223 + 60 + 34 + 470 + 929 + 9). However, the masdars can be inflected for 10 cases, which gives us 340 forms, and the participles take 22 cases: $470 \times 22 = 10,340$. Hence, if we take into consideration the case-marked forms of the deverbal nominals we get 12,405 forms ($1725 + 340 + 10,340$).

1.3.2 Forms with CNM In calculating these forms, we must consider not the number of classes (8) and numbers (2), but the number of distinct class-number markers. In synthetic verb forms these do not exceed four, while in analytic forms with agentive verbs permitting double agreement, there are 16 (= 4×4).

Additional case-marked forms of the masdar and participles amount to 165,800, making a total for this type of 188,463.

1.3.3 Forms with COMM The commentative can be formed from all personal forms and the admirative (=283), and itself has 9 personal forms, 10 gerunds, 1 absolutive, 7 masdars, 10 participles and 4 admiratives, a total of 41 forms, which gives $283 \times 41 = 12,603$.

Participles formed on the commentative give a further $283 \times 10 \times 22 = 62,260$ case-marked forms, the masdars, $283 \times 7 \times 10 = 19,810$, a total of 82,070 case-marked forms. In all, forms of the commentative without class-number markers come to 94,673.

The overall subtotal of forms without CNM is $12,405 + 94,673 = 107,078$.

1.3.4 Forms with CNM and COMM The commentative distinguishes 53 class-number forms, and can itself be formed from 3,832 class-number-marked forms ($2,872 + 960$), giving a total of 203,096 class-number forms with the commentative. Adding the class-number marked forms without the commentative (22,663), we obtain 225,729 distinct forms without case marking.

The case-marked participial forms from the commentative give $3,832 \times 10 \times 22 = 843,040$ forms, the masdars $3,832 \times 7 \times 10 = 268,240$. In all, the number of forms of the commentative (including class-number-marked and case-marked forms) is 1,314,376.

The number of corresponding forms without the commentative is 188,463. Thus, the grand total, which in principle can be derived from a single verb root is 1,502,839 – that is, more than one and a half million.

A summary of these facts is given in table 23.7.

2 Nominal inflection

The noun has the classificatory grammatical category of class (four basic and four minor classes,²¹ number, case and localization. A characteristic feature of the nominal inflectional system of Archi (along with that of many other

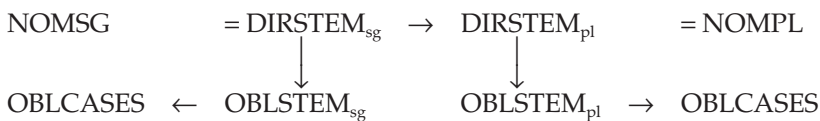
Table 23.7 The number of forms derived from a single verb root

+/-COMM	-CNM		+CNM	
	<i>without case forms</i>	<i>with case forms</i>	<i>without case forms</i>	<i>with case forms</i>
-COMM	1,725	12,405	22,663	188,463
+COMM	12,603	94,673	203,096	1,314,376
+/-COMM	14,328	107,078	225,729	1,502,839

Daghestanian languages) is the asymmetry between two subsystems of the case system: a group of grammatical cases and a group of spatial cases. The latter form a regular system consisting of a combination of two categories, spatial and locational. In addition, the noun paradigms exhibit an opposition between a direct case (nominative) and oblique cases: the direct case generally identical to the number stem, the oblique cases formed regularly from the oblique stem.

2.1 General model for noun paradigms

The structure of the noun paradigm can be illustrated schematically as follows (cf. Kibrik 1991a):



The regular plural markers are *-mul/īu* (depending on whether the stem ends in a consonant or a vowel), the oblique singular stem is *-li*,²² and the oblique plural stem is *-(č)aj*. Thus, the properties of singular (direct stem) and nominative remain unmarked. Oblique case markers do not distinguish number: this property is realized cumulatively in the marker of the oblique stem.

2.2 Grammatical cases

There are ten grammatical cases in Archi (see table 23.8).

Examples of the basic meanings:

- (17) to-w -mu nesen Xuzen-ni -s aL' haIršbo -qi.
he-III-OBL.ERG now master-OBL-DAT meat.NOM cook.PFTV-POT.NEU
 'Now he will cook the meat for the master.'

Table 23.8 Grammatical cases in Archi

Marker	Case	Case meaning
-∅	Nominative	A is the argument with which P occurs directly.
OBL + ∅	Ergative	(a) A is the animate argument which performs P. (b) A is the inanimate argument serving as the instrument/means of realizing P.
OBL + s	Dative	A is the argument with an interest in P.
OBL + n	Genitive	A is determinant of the NP node.
OBL + ĩu	Comitative	A is the argument together with which some other argument takes part in P.
OBL + Xur	Comparative	A is the argument which has a property to a lesser extent than some other argument.
OBL + L'əna	Permutative	A is the argument which takes part in P instead of another argument.
OBL + ši	Causal	A is the cause of event P.
OBL + qliš	Partitive	A is the set of objects from which a particular subset is taken.
OBL + qldi	Equative	An event P occurs in a manner typical of A.

(18) nac'-a -n cal -um-čaj naq' caqI -u-li.
bird-OBL-GEN feather-PL-OBLPL.ERG ground.NOM cover-PFTV-INFER
 'The bird's feathers covered the ground.'

(19) un hannum-mu-ĩu w-irX_oin -ši e-w-di?
thou.NOM who -OBL-COMIT I-work.DUR-ABS be-I-(be)
 'Who did you work with?'

(20) zon uš -mu -Xur t'i -t'u.
I.NOM brother-OBL-COMP small.NEU-NEG
 'I am not smaller than my brother.'

(21) w-is lah -a -L'əna lo t'al-w-a uĩa-w-u
I-I.GEN son-OBL-PERM son.NOM send-I-IMPER thou.GEN-I
 'Send your own son in place of my son.'

(22) hiba-ĩu-t iq i-kul-ili-ši
be.good-ADJZR-IV day.NOM be-MASDAR-OBL-CAUSAL
 nen k_oeķi=šēki-s²³ oqIa.²⁴
we.NOM walk-inf V-VI.PL.go.PFTV
 'Since it was a nice day, we went for a walk.'

Table 23.9 Nominal spatial forms

Localization	Spatial case					
	<i>essive</i>	<i>ablative</i>	<i>lative</i>	<i>allative</i>	<i>terminative</i>	<i>translative</i>
IN	-a	-aš	-ak	-aši	-akana	-aXut
INTER	-qI	-qIaš	-qIak	-qIaši	-qIakana	-qIaXut
SUPER	-t	-tīš	-tīk	-tīši	-tīkana	-tīXut
CONT	—	-raš	-rak	-rši	-rakana	—
SUB	-L'	-L'aš	-L'ak	-L'aši	-L'akana	-L'aXut

- (23) jamu-r wiLa-r-u lah-a-qIis os t'inna tuX-du-r
this-II seven-II-(seven) girl-OBL-PART one slightly be.shy-ADJZR-II
 e-r-di-li.
was-II-(was)-INFER
 'Of these seven girls, one was somewhat shy.'

- (24) te-jamj L'an nen za-qIdi
they-OBLPL.ERG want.NEU we.NOM REFL.OBLPL-EQU
 lagum Xabu-s.
song.NOM sing-FIN
 'They want us to sing in their fashion.'

2.3 Spatial forms

The system of spatial forms results from a combination of the sixth meaning of the category of locational case with the fifth meaning of the category of location. In all, twenty-eight forms are found, shown in table 23.9 (the locational CONT does not combine with two case meanings, the *essive* and the *translative*). For example (*č'ele* 'stone'):

č'ele-li-t	č'ele-li-tīk	č'ele-li-L'	č'ele-li-L'-iš
<i>SUPER-ESSIVE</i>	<i>SUPER-LATIVE</i>	<i>SUB-ESSIVE</i>	<i>SUB-ABLATIVE</i>
'on to the stone'	'on to the stone'	'under the stone'	'from under the stone'

A fragment of the nominal paradigm is shown in table 23.10.

The spatial forms are used principally to express a variety of spatial relationships of a position or direction of motion with respect to some reference point. The particular meanings of the localization determine either a contextual or a generic orientation with respect to the reference point, depending on the semantics of that reference point.

Table 23.10 Partial paradigm of the noun aInš ‘apple’

Case	Sg.	Pl.
Nominative	aInš	aInš-um
Ergative	aInš-li	aInš-um-čaj
Dative	aInš-li-s	aInš-um-če-s
Genitive	aInš-li-n	aInš-um-če-n
Comitative	aInš-li-ħu	aInš-um-če-ħu
Comparative	aInš-li-ħur	aInš-um-če-ħur
Permutative	aInš-li-L’əna	aInš-um-če-L’əna
Partitive	aInš-li-qliš	aInš-um-če-qliš
In=essive	aInš-l-a	aInš-um-ča-j
In=ablative	aInš-l-a-š	aInš-um-če-j-š
In=lative	aInš-l-a-k	aInš-um-če-j-k
Super=essive	aInš-li-t	aInš-um-če-t
Super=ablative	aInš-li-ṭ-iš	aInš-um-če-ṭ-iš
Super=lative	aInš-li-ṭ-ik	aInš-um-če-ṭ-ik

The generic orientation is particularly important for the localizations IN and INTER, which for many nouns are in complementary distribution. The IN localization is possible with nouns denoting objects which have a volume and are capable of serving as containers (*k’adi* ‘measure for flour’, *noL’* ‘house’, *langar* ‘tray’) and objects covering a delimited area (*azbar* ‘yard’, *harq* ‘roof’, *qoq* ‘back, spine’), or a delimited period of time (*nulbžal* ‘week’, *Šummar* ‘life(time)’). The localization INTER combines with nouns denoting substances (*diq’* ‘soup’, *elle* ‘tin’, *k’un* ‘flour’), unarticulated aggregates of objects (*balk’i* ‘pile’, *Lon* ‘herd, flock’), and types of fruit and plants (*mač* ‘nettles’, *arqlut* ‘nuts’). The generic localization SUPER is found with nouns denoting flat objects (*diwin* ‘carpet’, *qal* ‘skin’, *k’os* ‘knife’), objects whose surface can be utilized (*kutuk* ‘stump’, *qlin* ‘bridge’, *L’ili* ‘saddle’), external body parts (*eXI* ‘cheek’, *nodo* ‘forehead’), areas without any natural borders (*awlaq* ‘steppe’, *dunil* ‘sky’) and abstract concepts (*oq* ‘wedding’, *riši* ‘elections’). The localizations SUB and CONT are generally only used contextually.

The essive refers to a spatial position which is given by the corresponding localization with respect to a reference point (LOCN):

ablative – motion out of LOCN

lative – motion into LOCN, implying attainment of that position

allative – motion towards LOCN, not implying attainment of that position

terminative – motion into LOCN but no further

translative – motion along/across LOCN.

Table 23.11 Spatial postposition paradigms

Meaning of postposition	Spatial case				
	<i>essive</i>	<i>lative</i>	<i>ablative</i>	<i>allative</i>	<i>translative</i>
'between'	qI'on	qI'ana-k	qI'ana-š	qI'ana-ši	qI'ana-Xut
'on'	jat	jaṭ-ik	—	—	jaṭi-Xut
'near'	—	ḫ _o a-k	ḫ _o a-š	ḫ _o a-ši	ḫ _o a-Xut
'under'	—	L'ara-k	L'ara-š	—	L'ara-Xut
'behind'	Xir	Xara-k	Xara-š	—	Xara-Xut
'in front of'	—	hara-k	hara-š	—	hara-Xut

In addition to the synthetic spatial case forms, postpositional constructions are used with similar meaning. These are comprised of the dative case of the noun and a spatial postposition. These postpositions, too, are inflected for spatial cases;²⁵ see table 23.11.

- (25) mul-li-s jat /mul-li-t boXI
mountain-OBL-DAT on-ESS/mountain-OBL-SUPER.ESS goat.NOM
 ob-sdi-li b-i.
stand.PFTV-III-ABS III-be
 'A (Caucasian) goat is standing on the mountain.'

As can easily be seen, the locational morphemes are related in form to the roots of the postpositions, which is evidence that they originate from postpositions.

Spatial forms can also be used with non-spatial meanings, such as external cause (IN-ESS), temporary possession (CONT-LAT, CONT-ABL), time (CONT-ESS) and so on.

Examples are:

- (26) jasqi zon Ler-kul-l-a baIraj o-w-X-u.²⁶
today I.NOM be.hot-MASDAR-OBL-IN.ESS bathe-I-PFTV
 'Today I went for a swim because it was hot.'
- (27) to-w-mu za-ra-š Ḫ_oal-li-n mec'e
he-I-OBL.ERG I.OBL-CONT-ABL bread-OBL-GEN piece.NOM
 o-b-Ḫa.
take.PFTV-III
 'He took a piece of bread from me'.

In addition to this, the spatial forms can be used syntactically, by creating arguments to verbs which lexically govern those cases. For instance, the following verbs govern the super-essive: *ḡejb i* 'be guilty (subj.)', *qles* 'ride (dir. obj.)', *L'ili elas* 'saddle (dir. obj.)', *wiX* 'believe (dir. obj.)', *šak* 'doubt (dir. obj.)', *mairš* 'envy

(dir. obj.)'. The following govern the super-lative: *saḱas* 'look at (something)', *oj-ačas* 'hear (dir. obj.)'; the sub-ablative: *L'inč'ar* 'be afraid of (something)', *Xustar-as* 'save (from something)'; the cont-allative: *barka-bos* 'congratulate (dir. obj.)', *k,ač'et-bos* 'tell lies (to somebody)'.

2.4 The possessive locative

There is a highly idiosyncratic form in which the genitive form of an animate noun *X* combines with the locational *-ma* (cf. the identical temporal gerundive marker) to give the meaning 'region in space where *X* lives'. For instance, the noun *dos* 'friend' (genitive *dos-li-n*) gives the spatial case forms:

ESSIVE:	<i>dos-li-m-ma</i>	'at a friend's house, where a friend lives'
LATIVE:	<i>dos-li-m-ma-k</i>	'to a friend's house, to where a friend lives'
ABLATIVE:	<i>dos-li-m-ma-š</i>	'from a friend's house, from where a friend lives'

3 Conclusions

Our examination of the verbal and nominal paradigms has shown that the astronomically large number of forms does not mean that the morphology of Archi is unduly complex. The forms are not so much stored in the speaker's memory, as derived by fairly simple rules: each slot in the paradigm is the conjunction of the meanings of all the grammatical categories compatible with words of that part of speech.²⁷ Moreover, the co-occurrence restrictions on the meanings of categories are minimal, and, in general, are motivated semantically (which means that they, too, do not need to be memorized). At the same time, the rather large repertoire of grammatical categories themselves, many of which are, in addition, formally complex, affords the native speaker the opportunity to categorize reality in an extremely subtle fashion, using maximally simple (grammatical) means.

Furthermore, the question of simplicity/complexity must be viewed in relation to the structure of the language as a whole, not to specific levels. Thus, productive deverbal derivation (the *masdars*, participles and gerunds) facilitate a significant minimization of syntactical devices: clauses are embedded in NP-, AdjP- and AdvP- positions morphologically, by the nominalization, adjectivization or adverbialization of the head of the clause, its verb.²⁸ A similar picture is found with the functions of the spatial forms of nouns.

Abbreviations

ADJZR	adjectivizer
ADM	admirative

APPR	approbative mood
CNM	class-number marker
COMIT	comitative case
COMM	commentative
COMP	comparative case
CONJ	conjunctive mood
CONST	constative tense-aspect
CONT	'near'-localization
CONTIN	continous aspect
DEB	debitive mood
DIRSTEM	direct stem
DUB	dubitative mood
EQU	equative
ESS	essive case
FIN	finalis aspect
IMP	imperative mood
IN	'in'-localization
INCEP	inceptive tense-aspect
INFER	inferentiality
INTER	'between'-localization
INTERR	interrogative mood
LAT	lative case
LOCN	localization
NEU	neutral tense
OBL	oblique stem/case
OBLSTEM	oblique stem
OPT	optative mood
PART	partitive
PAST	past tense
PERF	perfect tense-aspect
PERM	permutative
PFTV	perfective aspect
POT	potential aspect
PROH	prohibitive mood
SUB	'under'-localization
SUPER	'over'-localization
TERM	terminative case

NOTES

1 Translator's note: I have retained Prof. Kibrik's transcriptions by and large, in order to facilitate comparison with other publications. His transcriptional conventions are as follows (IPA equivalents, where

appropriate, are given in square brackets):

L voiceless lateral affricate [tʃ]
 † voiceless lateral fricative [ɬ]
 X voiceless uvular fricative [χ]

R	voiced uvular fricative [ʁ]
H	voiceless emphatic laryngeal [ħ]
ʕ	voiced emphatic laryngeal [ʕ]
ə	schwa [ə]
ī	fortis consonant
tʼ	ejective consonant [tʼ]
t _o	labialized consonant [tʷ]
t̪	pharyngealized consonant [t̪]
aI	pharyngealized vowel [a]
a:	long vowel [a:]

See also the main list of abbreviations at the beginning of this volume.

- 2 The aspect stem is identical to the tense-aspect form of the constative. Similarly, other aspect forms correspond to tense-aspect forms of the aorist, the future or the infinitive. See below.
- 3 a → o before w.
- 4 It is also possible to regard the analytic tense forms in the final as derived directly from the infinitive.
- 5 In conjunction with the perfective it has the meaning ‘the result of event P continues to take place at the time of utterance’.
- 6 This is derived historically from *i* ‘be’ and *ker* ‘become’.
- 7 Here and elsewhere SG is not specifically indicated.
- 8 In analytic forms of the verb a double nominative construction is possible, in which the lexical verb agrees with the patient and the auxiliary agrees with the agent.
- 9 The perfective is formed irregularly.
- 10 *tʼal=as* ‘send’ is a complex verb with an adverbial component, *tʼal* of unknown historical origin and a finite component *as* ‘do, make’.
- 11 The verb ‘to go, leave’ with the irregular aspectual forms *qle-s* ‘FIN’ – *oqla* ‘PFTV’ – *Xaīi* ‘POT’. The form *uqla* derives from **o-w-qIa*.
- 12 Analytic form of the past debitive. The class-number prefix is given an epenthetic vowel, *-ba-*, because the root begins with a consonant.
- 13 The future *uqi* is derived from **a-u-qi*.
- 14 Special nominal form from personal nouns meaning ‘region in space where the given person lives’; see section 2.4.
- 15 At the same time analytic forms of the present tense do not have the auxiliary verb *i* ‘be’, and forms of the neutral tense add the corresponding absolutive marker: i.e. the present and neutral tense coincide formally. Thus, from *wirX_oin*, CONST and *wirX_oinšī wi*, PRES-I, the possibilitive takes the form *wirX_oinšī Xuqi*. In a number of cases (though by no means all!) the possibilitive coincides in shape with the admirative, but the constructions differ syntactically, since the admirative takes a Dative marked complement.
- 16 The controller for number agreement is the 2 pl. pronoun, which requires a zero formative (as does the 1 pl. pronoun); see n. 21.
- 17 The marker *-tʼi* combines with complex verbs whose inflecting component is *-bos*, lit. ‘to speak’.
- 18 This verb does not inflect for class.
- 19 The Daghestanian languages generally have a tendency to express co-ordinate relations by means of subordination. For this reason, the use of the Archi absolutive is wider than that of the gerund in European languages such as Russian: there is no co-referentiality constraint between the subjects of the matrix and embedded clauses, and, indeed, there need be no co-reference at all.
- 20 The class-number suffixes don’t in general correspond to the verb prefixes/infixes inherited from the verb, since their controllers are different.

- 21 Classes are distinguished by agreement rules (on class-number markers, see above). Minor classes are generally not distinguished, though their behaviour in the plural is markedly different from that of the basic classes. The minor classes are semantically homogeneous. Firstly, two classes (V and VI) make up the first- and second-person masculine and feminine pronouns. In distinction to the nouns of classes I, II, which also denote male and female persons, these have a null marker for the plural rather than *-b-*, the usual marker for people. Class VII includes collective nouns for people. Unlike class III (with which class VII coincides in the singular), this class takes the marker *-b-* in the plural (which is characteristic of personal nouns, cf. classes I, II). Nouns in class VIII behave similarly. They denote people undifferentiated for sex (*lo* 'child', *adam* 'person'): in the singular they correspond to nouns in class IV (inanimates), while in the plural they correspond to personal nouns of classes I, II (marker *-b-*). Agreement for plural number with nouns from classes VII, VIII is semantically based, though there is no synchronic justification for the 'impersonal' agreements of the pronouns *nen* 'we' and *žen* 'you (pl.)'. This phenomenon remains unexplained.
- 22 In fact a significant proportion of nouns form their plurals and oblique stems irregularly; see Kibrik and Kodzasov 1990: 283.
- 23 A verb with partial reduplication of the root.
- 24 On the null marker for Classes V, VI, see n. 21. This verb forms its perfect suppletively.
- 25 This fact, as well as the fact that spatial adverbs and locative gerunds (see above) also inflect for spatial cases, is evidence that this construction is common to a number of parts of speech, if we consider the spatial forms as entering into a single nominal paradigm. We might suppose that these forms (at least historically) are adverbial representations of the noun, where location fulfils the function of adverbial derivation. In that case, the spatial cases would characterize only the spatial adverbials. On the other hand, this interpretation is contradicted by situations in which the spatial forms are used as syntactic cases (see below).
- 26 Complex verb: *baIraj aXas* 'to bathe', lit. 'lie down in a lake'.
- 27 In this connection, the following psychological fact is not without interest. When a native speaker is presented with a fairly cumbersome verb form, which fills 'exotic' slots in the paradigm, he will often deny that such a form is possible at first (since there is no such pre-compiled combination of category meanings in his memory), but then will radically change his grammaticality judgement: 'You can say that in such-and-such a context.' In other words, the verb paradigm is stored in the memory of an Archi speaker in a fundamentally different way from that in which a paradigm is stored in the memory of a Russian speaker, or, especially, an English speaker: viz. in the form of a deductive procedure, not as a fixed form.
- 28 To this one might add the semantic content of the grammatical cases, in that they code semantic roles (Factitive, Agent, Addressee, Instrument, Cause, Place, etc.), not syntactic relations (subject, direct object, indirect object); see Kibrik 1979a, 1991b. This, too, simplifies the syntax.