

TOWARD A FORMAL MODEL OF ALUTOR SURFACE SYNTAX:  
PREDICATIVE AND COMPLETIVE CONSTRUCTIONS

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## 1. INTRODUCTORY REMARKS

Alutor is a language of the Chukchee-Kamchatka stock, which, besides Alutor, includes Chukchee, Kerek, Koryak, and Kamchadal (= Itelmen). Alutor is considered by some to be only a dialect of Koryak. Since this matter is irrelevant to the present study, we will confine ourselves to the by now official opinion expressed in *Jazyki Narodov SSSR*, Vol. V, 1968, p. 235ff., which grants Alutor the status of an independent language in its own right.

Spoken by about a thousand people in some remote villages of Northern Kamchatka (Vyvenka, Tiličiki, Anapka, Rekinniki, etc.), Alutor possesses neither monographic descriptions published so far, nor any lexicons or collections of texts. There exist two unpublished descriptions of Alutor (Vdovin, 1956, and Mel'nikov, 1940), which we were unable to obtain. The only scientific sources available are an informative, though brief outline — Žukova (1968), and a now somewhat obsolete pioneering paper Stebnickij (1938). And as scant as the general information on Alutor is, it is, as is the case with many languages, its syntax that remains the least studied aspect of Alutor. Consequently, we have tried to develop a formal model of Alutor surface syntax using data gathered by us during two field trips to Kamchatka, organized and supported by Moscow University (July 1971 and July 1972). Our linguistic team worked in the village of Vyvenka under the supervision of A. E. Kibrik.

## 2. SOME FACTS ABOUT ALUTOR

The linguistic data we have at our disposal permit us to undertake no more than a tentative description of Alutor syntax; the elaboration thereof has resulted in some 50 rules of the form discussed in Section 3. We first investigated predicative and completive constructions, which make up the "predicative kernel" of any Alutor sentence — its verbal predicate (= main verb) together with the grammatical subject and the grammatical objects. It is these constructions that reveal many syntactic peculiarities characteristic of Alutor as a representative of the Chukchee-Kamchatka stock (in particular, the

ergative construction, so typical of the languages of the stock). And it is these constructions that will be described below.

However, before starting our description, it seems advisable to cite here some pertinent factual data about Alutor which appear frequently in our examples and analyses:

1. Phonemic pattern of Alutor;
2. Inflection of the Alutor nouns;
3. Inflection of the Alutor verbs;
4. Resultative form of the Alutor verb;
5. Verb-noun agreement in Alutor.

The reader may well skip the rest of this section returning to it whenever he finds this necessary

2.1 *The phonemic pattern* of Alutor is as follows:

#### VOWELS

i	u
e	o
ə	a

#### CONSONANTS

Point of articulation		Labial	Pre-velar		Velar	Uvular	Laryngeal
			Non-palatalized	Palatalized			
Obstruents	Voiceless (plosives)	p	t	ç/ʃ	k	q	ʔ?
	Voiced (fricatives)	v	—	—	ɣ	—	—
Sonants	Nasal	m	n	ɲ	ŋ	—	—
	Non-nasal	—	l r	ɭ	—	—	—
Glides		w	j		—	—	—

ʃ is an emphatic ( $\approx$  pharyngealized) glottal stop, and ʔ is a simple glottal stop; ç and ʃ are free variants, mostly in different idiolects. (The above phonemic pattern of Alutor has been established by S. V. Kodzasov; there are some minor differences between it and the pattern appearing in Žukova, 1968: 295, which cannot be discussed here.)

Stress is automatic and always falls on the second syllable from the

beginning of a word form, except if it is the last syllable or if it is open and contains an /ə/: then the stress is on the left-most, i.e. first syllable.

2.2 The Alutor noun distinguishes *three grammatical numbers*: singular (sg), dual (du), and plural (pl).

As for *grammatical case*, the case system of Alutor includes 4 central (= syntactic, see below) cases and 5 peripheral ones (= semantic cases with more specific meanings). Common nouns neutralize the three numbers in all oblique cases, while proper human nouns neutralize all oblique cases in the dual and the plural.

We give here the central part of the paradigms of the nouns (A) *məŋɣəlɥən* 'hand' and (B) *Miti* (feminine proper noun), i.e., their syntactic cases only:

A) MƏŊɣƏLɥƏN 'hand'

	Sg	Du	Pl	
Nominative	<i>məŋɣəlɥən</i>	<i>məŋɣ-ət</i>	<i>məŋɣ-uwwi</i>	
Instrumental	<span style="font-size: 2em;">}</span>			
Dative				<i>məŋɣ-a</i>
Locative				<i>məŋɣ-əŋ</i>
		<i>məŋɣ-ək</i>		

B) MITI

	Sg	Du	Pl	
Nominative	<i>Miti</i>	<i>Miti-na-t</i>	<i>Miti-na-wwi</i>	
Instrumental	<span style="font-size: 2em;">}</span>			
Dative				<i>*Miti-na-ta</i>
Locative				<i>Miti-na-ŋ</i>
	<i>Miti-na-k</i>	<i>Miti-tək</i>		

For the form *\*Mitinata* see below, page 27.

There is no accusative in Alutor, which is quite natural, given its ergative syntax; nor is there a genitive, its function being fulfilled by the denominal adjective.

Notice the three following important peculiarities of the Alutor declension system.

First, the suffix of the instrumental has two allomorphs: *-a* after a consonant (like in *məŋɣ-a*), and *-ta* after a vowel (like in *qura-ta* 'by the reindeer', cf. *qura-ŋa* '(a) reindeer'). Other case and number suffixes also have different allomorphs depending on the stem: *-əŋ/-ŋ* in the dative, *-ək/-k* in the locative, *-uwwi/-wwi* in the plural, and so on (the first allomorph being used after a consonant, the second, after a vowel).

Second, most of the proper human nouns and most of the kinship terms insert

before oblique case suffixes and number suffixes the determinacy marker *-na-*, cf., e.g. the locative case: *rara-k* 'in the house', *wajam-ək* 'in the river', *arγiη-ək* 'on the shore' vs. *Qəməv-əna-k* 'at Qamav's', *Marina-na-k* 'at Marina's', etc. Cf., however, *Jattiyən – Jattiyəna-k* or *Rənnəηalpəl'əη – Rənnəηalpəl'əna-k* (example (9), page 20).

Third, the set and composition of Alutor syntactic cases is a controversial issue. What we present here is, in our opinion, the most plausible analysis. A rather sketchy discussion of the problem and alternative solutions follow below (pp. 26-28).

2.3 The Alutor *verb conjugation* system is organized along the five following dimensions (for more details see Mel'čuk, 1973a):

- **Mood:** indicative, imperative, and conjunctive;
- **Tense:** present (with the exponent *-tkən*) and aorist (with a zero exponent);
- **Aspect:** resultative (see below, Subsection 2.4) and non-resultative;
- **Person:** 1st, 2nd, and 3rd;
- **Number:** sg, du, and pl.

For simplicity's sake, we ignore here the sequential (with the *ta- . . . η-* exponent), the imperfective-inchoative form with *-lqiv-*, and all non-finite forms.

The most essential fact within the present frame of reference is that the Alutor finite verb, when transitive, is *b i p e r s o n a l*; that is, the main verb in a clause obligatorily agrees in number and person both with its grammatical subject and its direct object. Thus, we have in effect two grammatical variables for number in transitive verbs: subject number (*sg<sub>s</sub>*, *du<sub>s</sub>*, *pl<sub>s</sub>*) and object number (*sg<sub>o</sub>*, *du<sub>o</sub>*, *pl<sub>o</sub>*). The same holds for person: there is subject person (*1<sub>s</sub>*, *2<sub>s</sub>*, *3<sub>s</sub>*), as well as object person (*1<sub>o</sub>*, *2<sub>o</sub>*, *3<sub>o</sub>*).

In (A) below, the paradigm of an intransitive (= mono-personal) verb, *jəlqat-ək* 'to sleep', in the aorist of the indicative is given in full, while in (B) the paradigm of a transitive verb, *pəηlu-k* 'to ask (questions)', also in the aorist of the indicative, is cited, though only partially (because of its size: 63 different forms!).

A) JƏLQAT-ƏK 'to sleep'

<i>tə-jəlqat-ək</i>	'I-slept'	<i>mət-jəlqan-mək</i>	'we(du)-slept'
<i>φ-jəlqat-i</i>	'you(sg)-slept'	<i>φ-jəlqat-tək</i>	'you(du)-slept'
<i>φ-jəlqat-i</i>	'he/she-slept'	<i>φ-jəlqat-γə'ət</i>	'they(du)-slept'
	<i>mət-jəlqal-la-mək</i>		'we(pl)-slept'
	<i>φ-jəlqal-la-tək</i>		'you(pl)-slept'
	<i>φ-jəlqal-la-t</i>		'they(pl)-slept'

## B) PƏŋLU-K 'to ask'

<i>tə-pəŋlu-nawwi</i>	'I-asked-them(pl)'	<i>mət-pəŋlu-nawwi</i>	'we(du/pl)-asked-them(pl)'
<i>φ-pəŋlu-nawwi</i>	'you(sg)-asked-them(pl)'	<i>φ-pəŋlu-tki</i>	'you(du/pl)-asked-them(pl)'
<i>φ-pəŋlu-ninawwi</i>	'he-asked-them(pl)'	<i>na-pəŋlu-nawwi</i>	'they(du/pl)-asked-them(pl)'
<i>na-pəŋlu-γəm</i>	'they(du/pl)-asked-me'	<i>na-pəŋlu-mək</i>	'they(du/pl)-asked-us(du)'
<i>na-pəŋlu-γət</i>	'they(du/pl)-asked-you(sg)'	<i>na-pəŋlu-tək</i>	'they(du/pl)-asked-you(du)'
<i>na-pəŋlu-n</i>	'they(du/pl)-asked-him'	<i>na-pəŋlu-nat</i>	'they(du/pl)-asked-them(du)'

2.4 The Alutor *resultative* is a verb category very similar to the Indo-European perfect. Like the latter, the resultative depicts observable results of a past action rather than the action itself. This fact imparts to the resultative its specific flavor of non-evidentiality and brings it nearer to the well-known obviative category, so that resultative forms (marked by the prefix *γa-*) are mostly used to refer to events or facts not witnessed by the speaker.

Formally, a resultative form (even of a transitive verb) agrees only with one of its surface-syntactic actants, which constitutes a sharp contrast to all non-resultative forms of transitive verbs, where a double (subject-object) agreement is, as we have just noted, without exception.

The only agreement-triggering actant of any resultative form, whether of an intransitive or a transitive verb, is taken to be its grammatical subject. (This proposal is briefly discussed below, along with the general problem of grammatical subjects in Alutor: p. 29ff.)

With intransitive verbs, the grammatical subject of a resultative form is obviously identical with that of the corresponding non-resultative form:

(1) *Qəmavvə γa-retəlqiv-lin* 'Qamav has-gone-home-he'

and

(2) *Qəmavvə retəlqiv-i* 'Qamav went-home-he'.

However, transitive verbs display another pattern. The resultative form of a transitive verb happens to agree with the actant that constitutes the direct object of the corresponding non-resultative form and does not agree at all with the other actant, i.e., with the grammatical subject of the non-resultative form. Thus, in *Qamav saw them* in Alutor the verb *saw* agrees both with *Qamav* as a subject, and with *them* as a direct object; while in *Qamav has-seen them* (i.e., in the resultative) the form *has-seen* agrees exclusively with *them*. This means that according to the proposal maintained above it is *them* that is the grammatical subject of the Alutor resultative form 'have-seen-them'.



Let us consider some Alutor transitive non-resultative sentences:

- (3) a. *uṅuṅu-ta təšviššav-nin maniwra-n*  
 'The-child he-pitched-it a-tent'.  
 b. *uṅuṅu-tək na-nəšviššav-ən maniwra-n*  
 'The-children they-pitched-it a-tent'.

The resultative counterparts of (3) are given in (4), a,b:

- (4) a,b. *uṅuṅu-ta/uṅuṅu-tək ɣa-nəšviššav-lin maniwra-n*  
 'By-the-child/by-the-children has-been-pitched-it a-tent'.  
 c,d. *uṅuṅu-ta/uṅuṅu-tək ɣa-nəšviššav-laŋ maniwra-wwi*  
 'By-the-child/by-the-children have-been-pitched-they tents'.

In conformity with our analysis, the grammatical subject in (4) is *maniwran/maniwrawwi* 'tent/tents', while in (3) it is taken to be the direct object. On the other hand, *uṅuṅuta/uṅuṅutək* is the grammatical subject in (3), where it participates conspicuously in verbal agreement; in (4) it is considered to be the agentive complement, i.e., a kind of an optional modifier (a *chômeur*, to borrow a term from relational grammar).

Thus, under the proposed analysis, resultative forms of Alutor transitive verbs have no direct objects at all, but are, so to speak, intransitive. In entailing a passive-like conversion of actants, the resultative form of transitive verbs in Alutor is, from the purely formal standpoint, much like the passive voice (though it is not opposed to any active voice). This is not surprising, since the formation of perfect forms on the basis of ancient passives is widely attested in many Indo-European languages. (On resultative *vs.* passive see also Mel'čuk, 1973a: 101-104).

2.5 *Verb-noun agreement* in Alutor, or the agreement of the main verb *X* with its grammatical subject *Y* or its direct object *Y*, can best be described by Table 1 on page 11.

#### Some comments:

1) The table consists of two halves, the top half (I) specifying the person of the verb, the bottom half (II) its number — depending on the agreement-triggering noun. Since it is necessary to distinguish person and number of the subject from person and number of the direct object ( $p_s, n_s$  vs.  $p_o, n_o$ , see p. 8), it seems expedient to use variables  $\pi$  and  $\nu$ , which stand respectively for person and number alone:  $\pi = p_s$  or  $p_o$ ,  $\nu = n_s$  or  $n_o$ . (When the condition part of a rule — see below, page 15 — contains the operator AGREE, it is

Table 1. *Verb-noun agreement in Alutor*

Context of Y (= noun)		not $Y \xrightarrow{\text{coord}} Z$	$Y \xrightarrow{\text{coord}} Z^1 \xrightarrow{\text{coord}} Z^2 \dots Z^{k-1} \xrightarrow{\text{coord}} Z^k   k \geq 1$	
			$\forall_i (Z^i(\text{non pers}))$ $1 \leq i \leq k$	$\exists_i (Z^i(\text{pers, p}))$ $1 \leq i \leq k$
Features of Y (= noun)		I.	II.	III.
I. $\pi(X)$ (= the person of the verb)	$Y(\text{pers, p})$	①	$\pi(X) = p(Y)$	② $\pi(X) = \min(p(Y), p(Z^i))$ $  1 \leq i \leq k$
	$Y(\text{non pers})$	③	$\pi(X) = 3$	④ $\pi(X) = \min(p(Z^i))$ $  1 \leq i \leq k$
II. $\nu(X)$ (= the number of the verb)	$Y_{\text{sg}}$	⑤ $\nu(X) = n(Y)$	⑥ $\nu(X) = \begin{cases} 1 & \text{du }   k = 1, n(Z^1) = \text{sg} \\ 2 & \text{pl }   k \neq 1 \text{ or } n(Z^1) \neq \text{sg} \end{cases}$	
	$Y_{\text{not sg}}$		⑦ $\nu(X) = \text{pl}$	

explicitly specified there whether  $\pi$  and  $\nu$  in the above agreement table should be read as  $p_s$  and  $n_s$  or as  $p_o$  and  $n_o$ .)

2) The person and number of the verb depend on (i) certain features of the noun – its inherent (lexicographic) properties as well as morphological categories and (ii) its surface-syntactic context. The first dependency is reflected in different rows of the table, and the second, in its different columns. The first column (I) covers the cases when the noun does not belong to a conjoined noun phrase, the second (II) and the third (III), the cases with conjoined subject or object ( $X \xrightarrow{\text{coord}} Y$  means that there exists a coordinate surface-syntactic relation between  $X$  and  $Y$ ); more specifically, the second column provides for conjoined noun phrases having no personal pronoun among the conjuncts, while the third column admits a personal pronoun within a conjoined subject or object.

N.B.: It should be emphasized that personal pronouns are considered here to be a subclass of nouns (with the feature “pers”).

3) As can be seen from the table, four cases of person agreement and three cases of number agreement can be distinguished.

① The person of the verb is identical to that of the noun (i.e., pronoun) it agrees with:

- (5) a.  $\gamma\text{amm}\text{ə}$  [ $Y$  – 1 person]  $t\text{ə-lev}\text{ət}ku\text{-}k$  [ $X$ ; the subject – 1 person]  
*nuta-k*  
 ‘I I-went-for-a-walk in-the-tundra’.

- b.  $\gamma\text{ə}m\text{n}an$   $t\text{ə-la}^?u\text{-}\gamma\text{ət}$  [ $X$ ; the object – 2 person]  $\gamma\text{ə}tt\text{ə}$  [ $Y$  – 2 person]  
 ‘I I-saw-you you [sg]’.

② The person of the verb is identical to that of the pronominal conjunct whose person has the lowest value:

- (6) a. *ənnu* [*Y* – 3 person] *to* *γəmmə* [*Z*<sup>1</sup> – 1 person] *mət-levətku-mək* [*X*; the subject – 1 person] *nuta-k*  
 'He and I we-went-for-a-walk in-the-tundra'.  
 b. *γəmnən tə-laʔu-tək* [*X*; the object – 2 person] *γəttə* [*Y* – 2 person] *to ənnu* [*Z*<sup>1</sup> – 3 person]  
 'I I-saw-you you [sg] and him'.

③ The verb is in the third person (*Y* is not a personal pronoun):

- (7) a. *γəmnin tumγətum* [*Y*] *levətku-j* [*X*; the subject – 3 person] *nuta-k*  
 'My friend he-went-for-a-walk in-the-tundra'.  
 b. *ləʔu-nina(wwi)* [*X*; the object – 3 person] *γərnik-u* [*Y*]  
 'He-saw-them animals'.

④ The same as in ②, the only difference being that *Y* itself is not a pronoun but there is at least one pronoun among the nominals conjoined with *Y*:

- (8) a. *Əmka* [*Y*], *Miti* [*Z*<sup>1</sup>] *to* *γəmmə* [*Z*<sup>2</sup> – 1 person] *mət-levətku-la-mək* [*X*; the subject – 1 person] *nuta-k*  
 'Amka, Miti and I we-went-for-a-walk in-the-tundra'.  
 b. *əllaʔa na-laʔu-la-mək* [*X*; the object – 1 person] *Əmka* [*Y*], *γəttə* [*Z*<sup>1</sup> – 2 person] *to* *γəmmə* [*Z*<sup>2</sup> – 1 person]  
 'Mother she-saw-us Amka, you [sg] and me'.

⑤ The number of the verb is identical to that of the noun it agrees with:

- (9) a. *γəmnin qəlavul* [*Y* – sg] *ɳəlvəlʔək vitat-ətəkən* [*X*; the subject – sg]  
 'My man in-the-herd he-works'.  
 b. *ətti* [*Y* – du] *γəʃγitkəʃav-linat* [*X*; the subject – du]  
 'They-two they-two-have-missed-their-way'.

⑥ a) The number of the verb is dual if there are only two conjoined nominals, both singular, to agree with:

- (10) *əlləγən* [*Y* – sg] *to əlla* [*Z*<sup>1</sup> – sg] *viʔə-γəʔət* [*X*; the subject – du]  
 'Father and mother they-two-died'.

b) The number of the verb is plural if there are more than two conjoined nominals with which the verb agrees or if the second conjunct is dual or plural:



- (11) a. *Mitinak ləʔu-nina(wwi)* [*X*; the object – pl] *qajuŋuŋu* [*Y* – sg],  
*ŋavəʃ-qatpił* [*Z*<sup>1</sup> – sg] *to* *ʒətʂən* [*Z*<sup>2</sup> – sg]  
 ‘Miti she-saw-them (a) boy, (a) girl and (a) dog’.
- b. *əŋɨnɨrak il-la-tkət* [*X*; the subject – pl] *qajuŋuŋu* [*Y* – sg] *to*  
*ŋitaq ŋavəʃqatpił-at* [*Z*<sup>1</sup> – du]  
 ‘In-this-house there-were (a) boy and two girls’.

⑦ The number of the verb is plural if *Y* is dual or plural and there are other nominals conjoined with it:

- (12) *aktəka mə-nməŋavə-na(wwi)* [*X*; the object – pl] *wuttaku(wwi)*  
*qajuŋuŋu-wwi* [*Y* – pl] *to* *ŋavəʃqatpił-u* [*Z*<sup>1</sup> – pl]  
 ‘It-is-impossible that-I-brought-up-them these boys and girls’.

This is about all that needs to be known about Alutor to follow our subsequent deliberations.

### 3. THEORETICAL FRAME OF REFERENCE

The model for a small fragment of Alutor surface syntax that we want to suggest lies within the framework of a general linguistic theory known as the “Meaning  $\Leftrightarrow$  Text” approach. We feel that it would not be advisable to expound here on the whole of the theory (the reader can find its main concepts and ideas in Mel’čuk, 1973a, 1974 and 1976: 26-62), but we will touch briefly on that part of it which seems indispensable for a formal description of Alutor syntax.

A “Meaning  $\Leftrightarrow$  Text” model for (a fragment of) a natural language may be thought of as a system of rules mapping the set of MEANINGS (or, better, semantic representations) onto the set of TEXTS (i.e., phonetic representations of utterances) of the language in question; and vice versa. Thus, a “Meaning  $\Leftrightarrow$  Text” model of a language is a TRANSLATING device (rather than a generative one) specifying correspondences between meanings and texts of this language.

The transition from meanings to texts and from texts to meanings takes place in several steps, each entailing an intermediate level of representation. These intermediate levels, postulated partly in accordance with a widely held linguistic tradition, are five in number:

- I. The semantic level: semantic representation (of utterances), or MEANING;
- II. The syntactic level consisting of two sublevels:

- IIa) the deep-syntactic representation (of sentences);
- IIb) the surface-syntactic representation (of sentences);
- III. The morphological level consisting also of two sublevels:
  - IIIa) the deep-morphological representation (of sentences and word-forms);
  - IIIb) the surface-morphological representation (of sentences and word-forms);
- IV. The phonological level;
- V. The phonetic/graphic-orthographic level, or TEXT.

When speaking of surface syntax we have to consider only two of these levels (and, naturally, the rules correlating them): the level of surface syntax and the level of deep morphology.

The surface-syntactic representation (SSR) of a sentence is a set of four formal objects:

- 1) the surface-syntactic structure (SSS);
- 2) the surface-syntactic anaphoric structure (specifying coreferentiality of lexical items and phrases in the sentence);
- 3) the surface-syntactic communicative structure specifying "topic-comment", "old-new", "emphatic-neutral" relations, and the like);
- 4) the surface-syntactic prosodic structure (describing semantically-loaded prosodies that mark question, irony, threat, admiration, etc).

Of all these, we will be concerned in this paper only with the first component – namely, the SSS. This is dependency tree each of whose branches is labeled with one of the surface-syntactic relations (SSRel) of the language and each of whose nodes is labeled with the name of a lexeme of the sentence, this name having subscripts for all relevant semantic grammatical categories. (A semantic category is one which can be directly reflected in the semantic representation: e.g., grammatical number of nouns, tense of verbs and so on, as opposed to syntactic categories such as grammatical case of nouns, which is most often syntactically governed by a verb, or number of the main verb which is determined by the number of the subject noun.)

It is important to emphasize that our approach introduces a powerful descriptive device quite alien to the classical PS-(phrase-structure) formalism: we mean SSRel's, i.e. the explicit marking of different syntactic dependencies. In what follows, three SSRel's are used: the predicative SSRel, the direct-objectival SSRel, and the indirect-objectival SSRel. For more details on SSRel's as well as dependency syntax in general, the interested reader may refer to Mel'čuk (1979).

The deep-morphological representation (DMR) of a sentence consists of two components:

- 1) the deep-morphological structure (DMS);
- 2) the deep-morphological prosodic structure.

Here also we will be concerned only with the first component – the DMS. This is the string consisting of deep-morphological representations (DMR) of all the word-forms in the sentence. The DMR of a word-form is the name of the corresponding lexeme (spelled out in uppercase letters) having subscripts for ALL grammatical categories of the lexeme, needed for the synthesis of the corresponding actual word-forms, – semantic categories as well as syntactic ones. The linear order of DMR's of the word-forms in the DMS of the sentence is the same as the order of the actual word-forms in the output sentence.

Having briefly touched upon those two components of the SSR and the DMR of a sentence that are important for our purpose, that is, the SSS and the DMS, we shall now concentrate on the rules specifying the correspondences between the two.

These rules, called *surface-syntax rules*, have the form

$$P \Leftrightarrow Q | C,$$

where:

1)  $P$  is a minimal subtree of the SSS tree: a pair of lexical nodes  $M_1$  and  $M_2$  connected by a SSRel  $r$ , i.e.  $r \begin{matrix} M_1 \\ | \\ M_2 \end{matrix}$ , and, probably, other nodes and branches constituting the context which controls the applicability of the rule;  $M_1$  and  $M_2$  have subscripts for semantic grammatical (morphological) categories.

2)  $Q$  is the same pair of nodes  $M_1$  and  $M_2$ , perhaps with some morphological subscripts added – referring to those syntactic grammatical categories which express the SSRel  $r$  between such nodes in a sentence. (Naturally, besides  $M_1$  and  $M_2$ ,  $Q$  also contains all context nodes and branches out of  $P$ , if there are any.)  $M_1$  and  $M_2$  in  $Q$  are linearly ordered as prescribed by  $r$  and their own syntactic properties.

3)  $C$  is the set of conditions that must be met by  $P$ , or  $Q$ , or both in order for the rule to apply.  $C$  may be null; obviously,  $C$  is the only optional component of a rule.

Component  $C$  of the surface-syntax rules is intended to include the type of information that cannot be expressed (or, at least, cannot be expressed in a natural and compact manner) in either the left-hand or the right-hand part of the rule: e.g., “negative” tree context (a requirement that such and such a subtree be absent); or else a complicated correspondence between some morphological values of nodes in  $P$  or  $Q$  given by a rather sophisticated Boolean formula (e.g., those complicated cases of grammatical agreement: pp. 11-13); etc.

When all minor and secondary complications are relegated to conditions,

the number of rules may be reduced and their generality increased. Essentially similar syntactic facts may be covered by one rule, which could otherwise not capture useful generalizations about the language in question.

4) The two-head double arrow  $\Leftrightarrow$  means 'corresponds'.

We assume that such rules as characterized above are formally adequate for expressing all of the relevant information about the syntax of any natural language, i.e., for explicitly showing which grammatical means – morphological categories and/or word order – serve for expressing or manifesting which syntactic relationships in which contexts.

Perhaps we should be less hard on the reader and try to explain our approach more thoroughly rather than merely outlining it. Unfortunately, this is an overwhelming task. Had we dwelt more on the general theory underlying our description, we would probably never arrive at the latter. We ask our reader's patience and indulgence if some of our tenets and notions only become clear on subsequent illustrations: it is precisely for the sake of the latter that the present paper has been written. The only way a descriptive device can be justified is for it to succeed in providing an illuminating description. So let us go ahead and turn to our description of some aspects of the Alutor syntax.

#### 4. NOTATIONS USED

1. In the rules given below, Roman capitals  $X, Y, Z, W$  stand for lexeme variables, i.e., variables ranging over the set of (Alutor) lexemes. These variables are used to label the nodes of surface-syntactic trees.

2. The parenthesized subscript to a lexeme variable represents the so-called *syntactics* of the respective lexeme. By the syntactics of a lexeme we mean all kinds of data about the inherent syntactic properties and behavior of the lexeme. In the present paper the following six types of syntactic data are used:

- Part of speech (V – verb, N – noun, ...; recall that personal pronouns are treated as a subclass of N: page 11).
- Proper/common nouns (prop/non-prop).
- Human/non-human nouns (hum/non-hum).
- Grammatical person (for pronouns only;  $p = 1, 2, 3$ ).
- The so-called government pattern of the verb, for instance: 1 [erg], 2 [nom], 3 [dat], 2 [CLAUSE]. The digit before brackets stands for the number of the respective deep-syntactic actant, and the symbol inside the brackets stands for the morphological shape of its surface-syntactic counterpart. "Erg" means "the instrumental or the locative case of the grammatical subject in the ergative construction" (for details, see below,

page 26); “nom” is nominative; “dat” is dative; and “CLAUSE” means an object clause. The correspondence between deep-syntactic and surface-syntactic actants is, in our case, rather simple: the first deep actant of a verb is always mapped onto its grammatical subject, the second deep actant onto its first grammatical object (which may be direct or not, depending on the verb) and the third, onto its second grammatical object. E.g.,  $X_{(V,2[nom])}$  means that the lexeme substituted for  $X$  must be a verb taking as its first grammatical (surface) object a noun in the nominative case, i.e., a direct object.

- Indirectly transitive/not indirectly transitive verb (ind-tr/non-ind-tr; for details on indirectly transitive verbs see below, Subsection 6.3).

3. The subscripts assigned to a lexeme variable outside the parentheses which enclose its syntactics represent its inflectional (morphological) variables (**boldface type**) or values thereof:

- Grammatical number of the noun:  $n = \text{sg, du (dual), pl.}$
- Grammatical case of the noun:  $c = \text{nom(inative), dat(ive), instr(umental), loc(ative).}$
- Grammatical person and number of the verb in agreement with its grammatical subject (subjectival person and number):  $p_s = 1_s, 2_s, 3_s;$   
 $n_s = \text{sg}_s, \text{du}_s, \text{pl}_s.$
- Grammatical person and number of the verb in agreement with its direct object (objectival person and number)  $p_o = 1_o, 2_o, 3_o;$   
 $n_o = \text{sg}_o, \text{du}_o, \text{pl}_o.$
- Aspect of the verb:  $\text{res(ultative), non-res.}$

4. The plus symbol (in the right-hand part of a rule) denotes the linear (left-to-right) ordering of lexeme occurrences in the text, its absence indicating the possibility of arbitrary ordering. Three dots show that the occurrences in question may be separated by arbitrary lexical material. Thus:

- $X + Y$  means ‘ $X$  immediately precedes  $Y$ ’,
- $X + \dots + Y$  means ‘ $X$  precedes  $Y$ , perhaps not immediately’,
- $X \dots Y$  means ‘ $X$  precedes or follows  $Y$ , perhaps not immediately’.

5. The topmost rightmost ordinary arrow (which may be the only arrow used) in the left-hand part of a rule, linking the nodes labeled  $X$  and  $Y$ , represents the surface-syntactic relation described by this particular rule. ALL other ordinary arrows (if any) in the left-hand part constitute the tree context and are therefore repeated in the right-hand part of the rule.

6. The symbol AGREE in the condition part of rules is the name of a special device called *operator*, which provides for person and number agreement of the verb with both its grammatical subject and its direct object.

Verb agreement in Alutor is, as has been shown on p. 11, a rather involved process, especially when the grammatical subject and/or the direct object is a conjoined nominal phrase including personal pronouns of different persons or numbers. For this reason, rules of verb-noun agreement in Alutor call for a separate description, which we present as an agreement table (see Subsection 2.5). The expressions  $\text{AGREE}(p_s, n_s(X); p, n(Y))$  and  $\text{AGREE}(p_o, n_o(X); p, n(Y))$  mean that the verb  $X$  must agree with, respectively, its grammatical subject  $Y$  or its direct object  $Y$  in person and number according to the agreement table.

Note that for better readability of surface-syntax rules, the syntactics of all nodes in the right-hand part of a rule (obviously identical with that of the same nodes in the left-hand part) are omitted.

## 5. SOME SURFACE-SYNTAX RULES OF ALUTOR

We confine ourselves to giving here nine of the surface-syntax rules of Alutor which seem to be most relevant. Notice that the Alutor examples are numbered separately in each section.

### I. Predicative constructions (Rules 1–3)

Nominative construction with an intransitive verb or with a transitive verb in the resultative (for resultative, see Subsection 2.4, p. 9); all and only such verbs take their grammatical subject in the nominative.

Rule 1

$$\begin{array}{c}
 X(V, 1[\text{nom}]) / (V, 1[\text{erg}])\text{res} \\
 \downarrow \begin{array}{l} \text{predicative} \\ \text{SSRel} \end{array} \\
 Y(N, p)n
 \end{array}
 \quad \Leftrightarrow \quad
 Y_{n, \text{nom}} \dots X_{p_s, n_s}
 \quad \left| \quad \text{AGREE}(p_s, n_s(X); p, n(Y))
 \right.$$

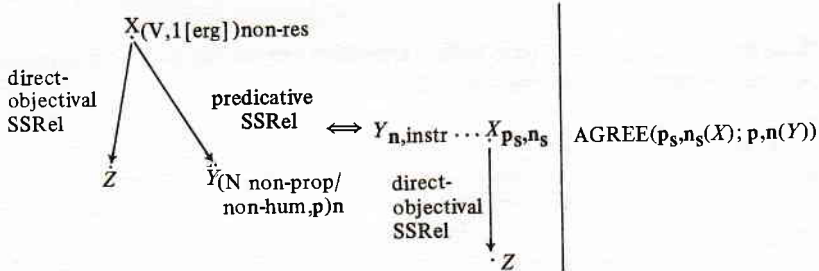
- (1) *kətawət Qutkəŋŋaqu* [Y] *kəteŋaʃʔu-j* [X] *tənuγəŋŋəŋ*  
 'Suddenly Qutkinyaqu [nom] he-quickly-looked [subject – 3 sg]  
 at-smoke-outlet'.
- (2) *ŋanina uraʃik-u* [Y] *Avaməlqakinak γa-kmil-laŋ* [X]  
 'Those servants [nom.pl] by-Avamilqaki they-were-taken [resultative;  
 subject – 3 pl]'.
- (3) *γəmnin qəlavul* [Y] *ŋalvalʔək vitatəlqivətkən* [X]  
 'My man [nom] in-the-herd(of-reindeer) he-goes-to-work [subject –  
 3 sg]'.



- (4) *oro ən̄in ən̄pəŋav* [X] *ɣa-vi'ə-lin* [Y]  
 'Soon this old-woman [nom] she-died [resultative; subject – 3 sg]'.

Ergative construction with a transitive verb in the non-resultative: a common or non-human noun as grammatical subject.

Rule 2



The direct-objectival branch issuing from the top node *X* in Rules 2 and 3 shows that both rules are applicable only in the presence of a direct object, which means that in Alutor, the ergative construction presupposes the direct object. The converse is also true: in all rules that describe completive constructions with direct objects, we find the predicative SSRel as necessary context.

In Alutor, a nearly obligatory rule of pronoun deletion in actual sentences is operational, so that sentences like (5) and (6) are quite normal:

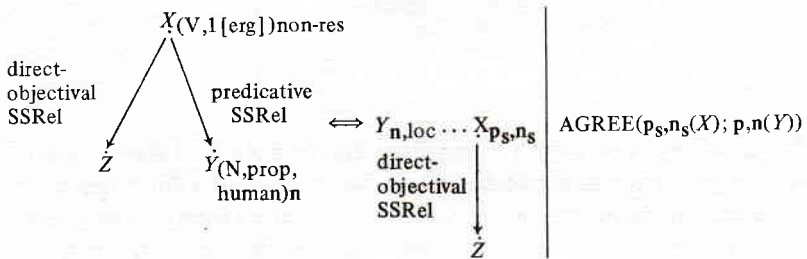
- (5) *qolin ən̄pə'əllaɣa inivi*  
 'One-day grandmother she-told-me';
- (6) *ɣəmnan təŋyun tala'uŋək*  
 'I I-started-it to-look-for [it] [i.e., for a spoon that has been mentioned in the preceding sentence]'.

Here, we find grammatical subjects in the instrumental – *ən̄pə'əllaɣa* and *ɣəm-nan* – but no direct object at all. It is so because the grammatical objects in the nominative – *ɣammə* 'I' (*ivək* 'to say, tell' is transitive in Alutor, see Subsection 6.3, on *ivək*2) in (5) and *ənnu* 'it' in (6) – should not be used on the surface if there is no special emphasis on them. However, such pronouns do appear in the SSS where they condition the agreement of the main verb. Thus, the requirement stated by the presence of the context direct-objectival branch in Rules 2-3 is satisfied.

- (7)  $\gamma\text{əm-nan}$  [Y]  $\text{ə}\gamma\text{inat pu}\gamma\text{ət}$  [Z]  $\text{nutaj tə-tallaŋ-ənat}$  [X]  
 'I [instr] their two-spears into-tundra I-will-carry-them-away-two  
 [subject - 1 sg]'  
 = 'I'll carry their two spears away into the tundra'.
- (8)  $\text{ənpəŋav-a}$  [Y]  $\text{lə}^{\text{u}}\text{sqiv-nin}$  [X]  $\text{qəlavul}$  [Z]  
 'Old-woman [instr] she-went-to-see-him [subject - 3 sg] man' [nom]'  
 = 'An old woman went to see (her) man'.

Ergative construction with a transitive verb in the non-resultative:  
 a proper human noun as grammatical subject.

Rule 3

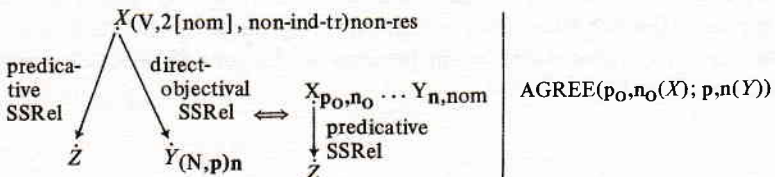


- (9)  $\text{taqəkjita šəvitku-nin}$  [X]  $\text{mur}\gamma\text{in ŋalla}$  [Z]  $\text{Rənnəŋalpal}^{\text{ə}}\text{əna-k}$  [Y]  
 'Why he-divided-it [subject - 3 sg] our herd Rannangalpal'an [loc]'  
 = 'Why did Rannangalpal'an divide our herd?'
- (10)  $\text{Miti-nak}$  [Y]  $\text{lə}^{\text{u}}\text{sqiv-nin}$  [X]  $\text{qəlavul}$  [Z]  
 'Miti [loc] she-went-to-see-him [subject - 3 sg] man [nom]'  
 = 'Miti went to see (her) man'.

II. Completive constructions with finite transitive verbs in the non-resultative  
 (Rules 4–9)

Nominal direct object

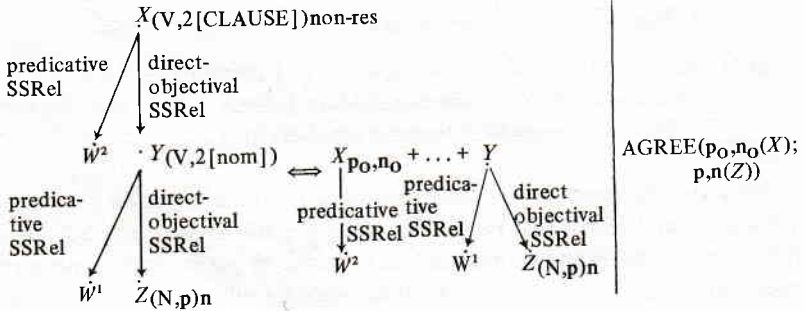
Rule 4





Verb agreement with the direct object of the object clause

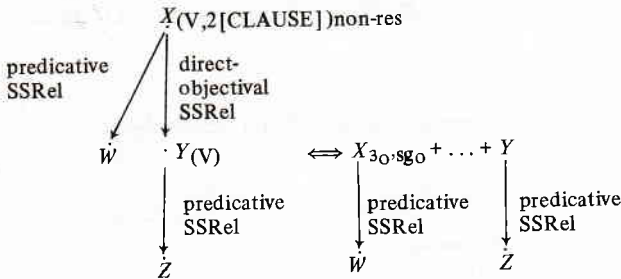
Rule 6



- (15) *Qamav-ənak ləʔutkə-nina* [X] *γən-annə kəlyatətkə-na* [Y] *qura-wwi* [Z]  
 'Qamav he-sees-them [object – 3 pl] you [sg, instr] you-harness-them [object – 3 pl] reindeer [pl, nom]'

Verb agreement with the object clause as a whole

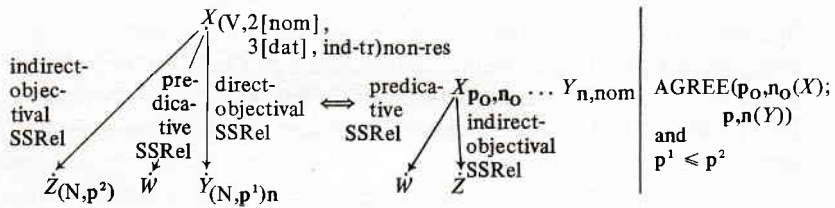
Rule 7



- (16) *Qamav-ənak ləʔutkə-nin* [X] *γən-annə* [Z] *kəlyatətkə-na* [Y] *qura-wwi*  
 'Qamav he-sees-it [object – 3 sg] you [sg, intr] you-harness-them [object – 3 pl] reindeer [pl, nom]'

Grammatical objects of indirectly transitive verb  
 Verb agreement with the direct object

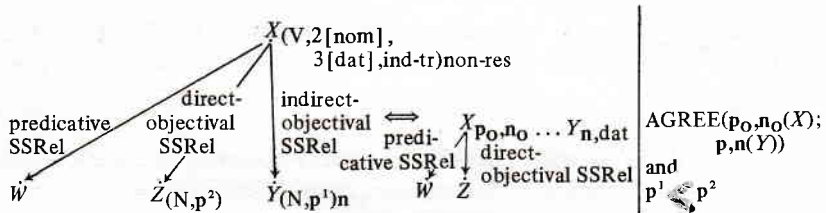
## Rule 8



- (17) *alləγ-a jəl-nina* [X] *ənəkə-ŋ* [Z] *sininkina ŋavakka-wwi* [Y]  
 'Father [instr] he-gave-as-wives-them [object - 3 pl] to-him [dat]  
 his daughters [pl,nom]'  
 = 'Father gave him his daughters as wives'.

## Verb agreement with the indirect (dative) object

## Rule 9



- (18) *alləγ-a ina-jəl-i* [X] *γəməkə-ŋ* [Z] *γattə* [Y]  
 'Father [instr] he-gave-as-wife-me [*ina-* is the exponent of 1sg obj]  
 to-me [dat] you'  
 = 'Your father gave you to me as a wife'.

## 6. THEORETICAL IMPLICATIONS

The rules cited above permit us to exemplify three interesting peculiarities of Alutor surface syntax, namely:

- 1) the so-called *ergative construction*, which raises the problem of the grammatical subject and its case;
- 2) *object agreement* of the main verb in the matrix sentence with its object clause;
- 3) *object agreement* of some verbs with their *indirect objects*.

### 6.1 On the ergative construction in Alutor

Although the concept “ergative construction” seems rather popular with many linguists, Western as well as Eastern (see, e.g., Chafe, 1970: 230-233; Anderson, 1971: 40-77; Comrie, 1973, 1977; Van Valin, 1977; Žirmunskij, 1967; Klimov, 1973, to name but a few), modern linguistics has so far no generally accepted rigorous definition of this concept. We will try to suggest a working definition necessary for our purposes. It is based exclusively on linguistic facts from Alutor and typologically related languages, so we cannot claim for it the generality we would like. It would be worthwhile to check the definition given below against the data of other ergative languages, but this is a project for future investigation.

To define the ergative construction in Alutor, the following nine basic notions are needed:

- Two syntactic ones, namely: (1) construction and (2) obligatory surface-syntactic actant (for brevity’s sake, it will be referred to simply as actant).
- Seven morphological ones, namely: (3) verb, (4) finite verb form, (5) noun, (6) affix, (7) grammatical person, (8) number, and (9) case.

Among all theoretically possible and actually occurring grammatical cases there is only one universally distinguished case: the citation form (i.e., the case of the noun used when answering the question: *What is it?*), which is generally called *nominative*.

Capitalizing on these notions and some rather obvious facts from Alutor, the intermediate notion of *grammatical subject* can be constructed, which is crucial for our definition of ergative construction. (Grammatical subject will be discussed in more detail at the end of this Subsection.)

Now, the definition of the notion ‘ergative construction’ is obtained in five steps.

(i) Take any one-actant (intransitive) verb, e.g., *jəlqat-ək* ‘to sleep’; its only surface-syntactic actant is considered to be its grammatical subject. As has been mentioned, the person and number of this verb’s only surface actant are always shown within the finite verb form by specific affixes called *subject affixes*. These build up the *subject affix-set*  $A_s$  of Alutor one-actant (intransitive) verbs. The agreement of a (one-actant) verb with its grammatical subject is called *subject agreement*.

(ii) Now consider a verb with two or more actants, such that its finite forms has two affixes (in our case, i.e., in Alutor, a prefix and a suffix) representing the person and the number of its two actants, e.g., *pəŋlu-k* ‘to ask’. From such verbs (which are called transitive) we obtain two different affix-sets



–  $A_1$  and  $A_2$  – and compare these with the single subject affix-set  $A_s$  of the one-actant verbs. That set of the two ( $A_1$  or  $A_2$ ) whose composition is closer (more similar)<sup>1</sup> to the composition of  $A_s$  is taken to be the subject affix-set of the multi-actant verbs implementing their subject agreement.

(iii) The actant of a multi-actant (transitive) verb whose person and number are shown within the verb form by subject affixes is taken to be its grammatical subject (the grammatical case of the actant itself being irrelevant). In other words, the grammatical subject of a multi-actant (transitive) verb in Alutor is its particular surface actant that conditions its subject agreement.

(iv) A construction “grammatical subject + main verb” with nominative subject is called *nominative construction*.

(v) A construction “grammatical subject + main verb” with non-nominative subject is called *ergative construction*.

The foregoing can be reduced to the following principle: roughly, we should speak of an ergative construction when we have a grammatical subject standing in a case other than nominative (i.e., other than the citation form case).

The qualification *roughly* is needed here because of two considerations:

– Perhaps it would be more precise to call constructions with non-nominative subjects just *non-nominative constructions*, and distinguish subclasses of the latter according to the actual case of the subject (genitive, dative, instrumental, etc. constructions). The ergative construction becomes then a specific subset of all non-nominative constructions.

– To form a genuine ergative construction, the grammatical subject in a non-nominative case must represent the actor, or the causer (of the action in question), rather than the patient, or the causee. This means that semantic considerations are also relevant for a general definition of ergative construction.

(These amendments are embodied in the definition of the ergative construction suggested in Mel’čuk, 1978 and 1979: 55–57.)

The following question remains open: should we aim at a definition of the ergative construction that would cover only three-term expressions of the form “grammatical subject – main transitive verb – direct object”; or is it preferable to limit ourselves to pairs “grammatical subject – main verb” so that our definition will include two-term expressions with intransitive verbs as well?

Evidence for the second alternative finds strong support in the fact that there are languages where intransitive (one-actant) verbs may require a non-nominative grammatical subject: cf.

(1) Georg. *Ṭaṭo-m gaiyima* ‘Tato [ergative] smiled’,

*Sopelši mamleb-ma iqivles*

‘In-the-village, the-roosters [ergative] cried’, etc.;

or

- (2) Aranda *Argankunba actua-la ilinkopinkoma*  
 'Argankunba men [ergative] appear',

*Tara-la urbutja-la nankopankai*

'Two [ergative] three [ergative] you-fly-out!', etc.<sup>2</sup>

This kind of construction appears to be common enough. It seems natural to apply the term 'ergative' to these constructions as well, as is actually done in many studies. Thus we are justified in trying to define the notion "ergative construction" in the more general form, namely, to include three-term as well as two-term (i.e., intransitive) expressions.

The ergative construction in Alutor exhibits the following interesting property. The noun in the role of grammatical subject of a transitive verb has one of two forms depending on its own features: if it is a human proper noun (like *Qutkəŋŋaqu* 'Qutkinyaqu' or *Mulitka* 'Mulitka', etc.) it takes the suffix *-(ə)nak*, otherwise — the suffix *-ta/-a* (in singular). But *-(ə)nak* is known to be a locative suffix which with human proper nouns has the approximate meaning 'in the house of':

- (3) *əγəv ənnu Qilivŋawut-ənak γatkivlin*  
 'Yesterday he at-Qilivngawut's has-passed-the-night',

while *-ta/-a* is the instrumental suffix of common nouns:

- (4) *jənakjita ənannə γapkavlin γərnik milyər-a tanmənki*  
 'Because-of-mist he couldn't animal with-rifle [instr] kill'.

This fact opens the way for two alternative treatments (a third possibility will be mentioned below):

— Either it can be said that in Alutor the syntactic function of grammatical subject may be fulfilled by nouns in two different cases: in the instrumental, for common nouns, and in the locative, for proper human nouns. This is the solution we adopt, and our rules are written accordingly (cf., in particular, Rules 2 and 3).

A similar treatment was proposed by A. Volodin (1967) for nouns and pronouns in Kamchadal (also one of Chukchee-Kamchatka languages).

A striking typological parallel can be found also in some languages of Soviet Daghestan. Thus, in Caxur the subject of a transitive verb is in the locative case if it is a human noun and in the genitive case otherwise (Bokarev, 1948: 65).

— Or else *-(ə)nak* can be taken to be not only the locative case suffix, but also a homonymous instrumental case suffix of human proper nouns. (We find just such a description of the related Chukchee suffix *-ne/-na* in

Inenlikej-Nedjalkov, 1967: 258-260.) Then any noun in grammatical subject function with a transitive verb will exhibit only one case, i.e., instrumental.

The latter description is supported by the obvious lack of instrumental forms in  $-(ə)nata$  for proper nouns: such forms are not attested either in published accounts of Alutor or in our own data. Yet this argument does not seem convincing to us. The point is that a human proper noun standing in the instrumental case but not being the subject of a transitive verb should denote an instrument or a tool,<sup>3</sup> and it is extremely difficult to imagine an actual situation where a human would be manipulated like an instrument. It may be just this inherent anomaly of such situations that accounts for the complete absence of sentences with proper nouns in  $-(ə)nata$  in our corpus. We believe, however, that such sentences are probably not absolutely excluded, if even only as purely potential utterances.

If in a Alutor translation of a (say, English) sentence meaning 'He broke the window with John' a native were to employ a proper noun in  $-(ə)nata$  (however odd the meaning itself would seem to him) but would not employ a form in  $-(ə)nak$ , then the first alternative would be clearly preferable. And we possess some positive evidence that such expressions can be forced in Alutor: one of our informants, Marina Tinangawut (18 years old), when asked (in a letter) what the sentence  $Qəmanvə\ ojitkən\ Marinanata$  could mean, answered that strange as it is, it means 'Qamav feeds on Marina', while the sentence  $Qəmanvə\ ojitkən\ Marinanak$  would necessarily mean 'Qamav feeds (himself) at Marina's'.

We find a similar phenomenon in English when considering the choice of the preposition used with the transform of the grammatical subject in some passive constructions. Cf.:

- (5) *John broke the window*           ⇒ *The window was broken by John;*  
 (6) *The hammer broke the window* ⇒ *The window was broken with the hammer.*

The traditional view is that the preposition introducing the "third member" of the passive construction (*by John* vs. *with the hammer*) is automatically selected according to the meaning of the respective noun: animate nouns select *by*, inanimate nouns — *with*. This view, however, turns out to be wrong since here *by* and *with* contrast semantically (which has been explicitly shown in Fillmore, 1968): *by* denotes an active Agent while *with* denotes an Instrument — independent of the meaning of the noun governed by the preposition. Linguistically, the sentences

- (7) *The window was broken with John*

and

- (8) *The window was broken by the hammer*

are quite normal, i.e., grammatical. What is anomalous about (7) and (8) is not the sentences as such but their meanings: 'Somebody used John to break the window with' and 'The hammer acting autonomously used something to break the window with'. (Cf. also *He was hit by the bullet* and *He was hit with the bullet*.) Similar considerations underlie the distinction Fillmore draws between the semantic roles of AGENT vs. INSTRUMENT, which may be filled by nouns of any meaning. Analogous observations can be found in Lyons (1969: 298), where the author convincingly demonstrates that to explain the choice of the preposition governing the third member of a passive construction by the animateness or inanimateness of the governed noun is only a superficial solution.

As was mentioned above (page 26), there exists a third solution (independent of all the previous considerations): to differentiate, for all nouns in Alutor, three rather than two cases (along with all other cases which are not under analysis here), namely:

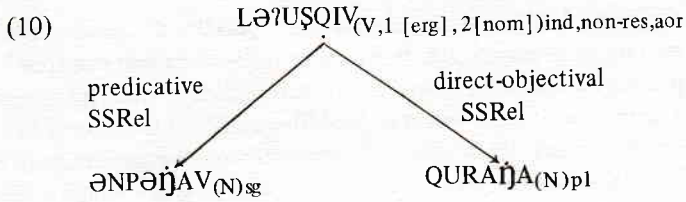
- 1) an instrumental (in *-ta/-a*) with instrumental or objective meaning (semantically excluded in proper nouns),
  - 2) a locative (in *-k*),
- and
- 3) an ergative, or the exclusive case of the grammatical subject in ergative constructions with transitive verbs. The form of the ergative always coincides, then, either with that of the locative (for proper nouns) or with that of the instrumental (for common nouns), which means that such an ergative would be in Alutor a morphologically subordinated case.<sup>4</sup>

The ergative construction of Alutor is described by surface-syntax Rules 2 and 3 (pp. 19-20), covering the predicative SSRel, i.e., the one connecting the main verb as governor with its grammatical subject as dependant; Rule 4 provides for the direct-objective SSRel, i.e., the one connecting a verb with its direct grammatical object, in the simplest case: a nominal as a direct object. These three rules match, in particular, the SSS's and the DMS's for sentences (9) and (12).

Sentence (9):

- (9) *ənpəŋav-a ləʔuʃqiv· ninawwi qura-wwi*  
 'Old-woman she-went-to-see-them the-reindeer [pl]'

has the surface-syntactic structure (10) and the deep-morphological structure (11):

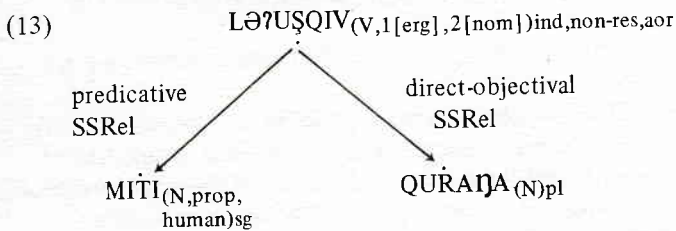


(11) ƏNPƏŋAV<sub>sg,instr</sub> LƏʔUŞQIV<sub>ind,non-res,aor,3s,sgs,3o,plO</sub> QURAIŋA<sub>pl,nom</sub>.

Sentence (12):

(12) *Miti-na-k ləʔuşqiv-ninawwi qura-wwi*  
 'Miti she-went-to-see-them reindeer [pl]'

has the SSS (13) and the DMS (14):



(14) MITI<sub>sg,loc</sub> LƏʔUŞQIV<sub>ind,non-res,aor,3s,sgs,3o,plO</sub> QURAIŋA<sub>pl,nom</sub>.

Having sketchily outlined the ergative construction in Alutor, we must return to the notion 'grammatical subject', which seems to be a common trap for many linguistic theories dealing with the problem of ergativity; it badly needs clarification but obviously a detailed analysis and discussion of grammatical subject is out of place here. We shall limit ourselves to the following three points.

(i) The notion of grammatical subject is central to any serious theory of natural surface syntax, where it seems necessary irrespective of the ergative construction and related matters. Linguistics absolutely has to define the notion, so we may take it for granted here that we can somehow make it precise enough to be used in the present context without being afraid of vicious circles.

(ii) Grammatical subject has nothing to do with semantics or pragmatics, and we should keep it strictly apart from such notions as semantic subject, actor, agent, experiencer, causer, and the like (along the Fillmorean lines), or topic, pragmatic focus and what not. The only terms in which to define it are purely surface-syntactic ones, such as triggering of the main verb



agreement, the control of pronominalization, susceptibility of deletion, conjoinability with other nominals, etc. It should be made clear that the grammatical subject may correspond to many different semantic roles: from actor and causer to instrument, from object or goal (in passive) to location (*The garden swarms with bees*), etc. — and that these roles may be implemented in the text by different surface-syntactic items, not only by grammatical subject.

(iii) Our attempt to define grammatical subject in Alutor through main verb agreement should by no means be construed as a claim to consider the latter to be the unique or even the most important criterion for grammatical subject in general.

On the contrary, our approach is different and runs as follows (with some inevitable repetitions).

To define the notion 'grammatical subject' in language L, first, take the simplest type of complete context-independent sentences in L, consisting of two constituents: a finite form of a semantically one-actant (intransitive) verb and a nominal, e.g. *John died*, *Mary walks*, etc. Then proceed by induction:

— Call the nominal in such bipartite (i.e., one-actant) sentences grammatical subject.

— Turning to more complex sentences, establish for L purely syntactic criteria of similarity between any surface-syntax nominal component of multi-actant sentences and the grammatical subject of one-actant sentences. These criteria are necessarily LANGUAGE-SPECIFIC and may include: identical or similar agreement with the main verb; identical or similar susceptibility of omission with no effect on the meaning of the verb; influence on reflexive pronouns; ability to be relativized; etc.

— Call grammatical subject whichever noun phrase is most similar in its surface-syntactic behavior to the previously established grammatical subject (according to the above criteria).

Note that in Alutor, with its rich and sophisticated verb agreement, the main verb agreement criterion happens to be of a particular importance. In a different language, it could well be of lesser or even no value. But even for Alutor, we by no means claim the uniqueness of this criterion. It is true that for the time being we do not know of other reliable surface-syntactic properties relevant for determining the grammatical subject of Alutor non-resultative forms. But, first, such properties might well be discovered by a more thorough exploration of Alutor data; and second, the verb agreement criterion does not seem sufficient with regard to resultative forms. Since these forms show only nine different cases of agreement (3 persons × 3 numbers) the choice of the grammatical subject for resultative forms on the basis of this rather underdeveloped agreement system does not look as convincing as it is the case with non-resultative forms. This prompts having



recourse to a further criterion: deletability. The actor of a resultative form can be easily removed from the sentence without destroying its grammatical autonomy: if instead of

- (15) *ʔatʔamtalʔatak* [instrumental] *nəmalʔən jiləjil* [nominative]  
*ɣajavalqivlin*  
 'By-the-Karagin-islanders [the] Namal'an language has-been-used'

we say simply

- (16) *ʔatʔamtak* [locative] *nəmalʔən jiləjil* [nominative] *ɣajavalqivlin*  
 'On-the-Karagin-island [the] Namal'an language has-been-used',

where there is no actor expressed, the resulting sentence (16) is as complete and autonomous as sentence (15). If we remove the actor (*unūnuta/unūnutək*) from sentence (4), page 10, the result remains grammatically complete and independent from the context; and so on. But the patient of a resultative sentence cannot be so removed:

- (17) *ʔatʔamtalʔatak ɣajavalqivlin*

means only 'By-the-Karagin-islanders IT was used', with 'it' referring to a nominal in some previous sentence, so that (17) is by no means independent and complete. We feel that if of the two surface-syntactic actants only one is deletable with no effect on the autonomy of the sentence while the other is not, it is the first one that should be called grammatical subject. For the Alutor resultative, this solution coincides with the evidence from the agreement and thereby strengthens the latter. (The test of deletability cannot be used for non-resultative forms, since these do not admit deletion of either actant.)

However, there still are some difficulties connected with taking the patient of a resultative form to be its grammatical subject.<sup>5</sup> So additional criteria of subjecthood in Alutor are required.

As can be easily seen, our attempt to formulate a method for defining grammatical subject is related to that of Keenan (1976), with perhaps more emphasis put by us on the language-specific character of subjecthood properties: the relevance of each such property and its relative weight must be established strictly within the language under analysis. Nevertheless, this does not contradict the universality of the subject category. We believe that the notion 'grammatical subject' is universal, in the sense that in any language, grammatical subject is either the only surface-syntactic actant of the intransitive verbs or that actant of the transitive verbs that better satisfies a set of particular surface-syntactic criteria established as relevant in that language and designed to facilitate the analyst's judgments about similarity of surface-

syntactic behavior of nominals. Cf. also Van Valin (1977) for a dissenting view and more pertinent references.

### 6.2 Object agreement of the main verb (in the matrix sentence) with its object clause

Alutor transitive verbs which can take as their direct object an object clause (i.e., verbs whose syntactics contains the feature "2 [CLAUSE]" ) show, generally speaking, three types of the object agreement.

If the object clause (OC) has as its main verb a two-actant (transitive) verb forming an ergative construction, then the object agreement of its governing, or matrix, verb (V) may be as follows:

(i) The object agreement of the matrix V is with the grammatical subject of the OC:

- (18) *Qəməv-ənak na-laʔutkəni-γət γənnə nə kəlyətəkə-na qura-wwi*  
 'Qamav he-sees-you you you-harness-them reindeer'  
 = 'Qamav sees you harnessing the reindeer'.

(ii) The object agreement of the matrix V is with the direct object of the OC:

- (19) *Qəməv-ənak ləʔutkə-nina γənnə nə kəlyətəkə-na qura-wwi*  
 'Qamav he-sees-them you you-harness-them reindeer'  
 = 'Qamav sees you harnessing the reindeer'.

(iii) The object agreement of the matrix V is with the OC as a whole; the OC is treated then as a singular noun so that the matrix V has an object exponent of 3 sg:

- (20) *Qəməv-ənak ləʔutkə-nin γənnə nə kəlyətəkə-na qura-wwi*  
 'Qamav he-sees-it [that] you you-harness-them reindeer'  
 = 'Qamav sees you harnessing the reindeer'.

If the main verb of the object clause is intransitive, then type (ii) agreement is obviously excluded while types (i) and (iii) remain possible:

- (21) *Qəməv-ənak ləʔutkə-nina arɣiŋ-əŋ təlalatəkə-t Sətvu-wwi*  
 'Qamav he-sees-them to-the-shore they-come boats'.

- (22) *Qəməv-ənak ləʔutkə-nin arɣiŋ-əŋ təlalatəkə-t Sətvu-wwi*  
 'Qamav he-sees-it [that] to-the-shore they-come boats'  
 = 'Qamav sees boats come/coming to the shore'.

We know of no formal conditions determining the choice among these three possibilities: sentences (18)-(20) and (21)-(22) seem to be free syntactic variants. Even if there are some minor semantic differences these would probably be no more than differences in emphasis.

A caveat: it should be noted that many speakers of Alutor do not readily accept or produce sentences like (20) or (22) – i.e., sentences showing object agreement of the matrix clause main verb with the object clause as a whole. Perhaps this could be explained by the difficulty of making the verb agree not with an actual noun but with a pure abstraction of a clause. While we believe that such sentences are admissible if only as marginal cases, we do not want to insist on them due to the paucity of our data.

In the same connection, we draw the reader's attention to the more general fact that object clauses (at least of the type just mentioned) are not favored by Alutor speakers. Although sentences (18)-(22) have been volunteered by native informants and generally are not objected to, in spontaneous speech an Alutor will usually replace what would be an object clause in English (or, for that matter, in Russian) by a participle (with incorporated object, if any). For example, a more common way to express the meaning of (18) seems to be (23):

- (23) *Qamav-ənak na-la'utkəni-γət qura-kəlyat-əl'u-γət*  
 'Qamav he-sees-you reindeer-harness-ing-you',

where *-əl'u-* is the present participle suffix.

In much the same manner (21) or (22) could be expressed instead as (24):

- (24) *Qamav-ənak lə'utkə-nina arγiŋ-əŋ təla-l'u Sətvu-wwi*  
 'Qamav he-sees-them to-the-shore coming boats'.

The reluctance of the Alutor language to use "genuine" object clauses necessitates a different solution. In case the governing matrix verb agrees with the grammatical subject or the direct object of its object clause – as in (18)-(19) and (21) – it can be maintained that the whole sentence is COMPOUND rather than complex, i.e., it is made up of a conjunction of two simple sentences, the first one having its pronominal object deleted by the pronoun deletion rule repeatedly mentioned above:

- (25) *Qamav-ənak na-la'utkəni-γət [γəttə], γənannə kəlyatətkə-na qura-wwi*  
 'Qamav he-sees-you [you], you you-harness-them reindeer'.

This solution provides a very simple statement for object agreement of the main verb in supposedly "complex" sentences: 3 sg only (since only cases like (20) and (22) will be considered to be complex sentences). The surface

deletion of personal pronouns reflected in verb agreement is, as has been said, a common process in Alutor, which seems to be a further argument in favor of the second solution. However, to definitively answer the question of how sentences with this verb agreement should be described, we need more data and a special study.<sup>6</sup>

For the present, our model implements the first solution, i.e., the three variant agreements in complex sentences. It is this solution that Rules 5-7 embody.

### 6.3 Object agreement of the verb with its indirect (dative) object in the presence of a direct (nominative) object

So far we have found in Alutor only one verb exhibiting object agreement with its dative object. It is *jələkki*: (1) 'to give smth. to smb.'; or (2) 'to give smb. [= a woman] as a wife to smb.'. Object agreement of *jələkki* with its two objects, nominative (= direct) and dative (= indirect), is determined by the two following rules:

(i) If the direct and the indirect objects of *jələkki* are of the same person (which Alutor admits only if both are of the 3rd person<sup>7</sup>) then the verb exhibits object agreement with its direct object:

- (26) *alləγ-a* [sg,instr] *jəl-nin-a* [3 pl,obj] *ənəkə-ŋ* [sg,dat] *šininkin-a* [pl] *ŋavakka-wwi* [pl,nom]  
 'Father he-gave-(as-a-wives)-them to-him his daughters'  
 = 'The father gave his daughters as wives to him'.

(ii) If the direct and the indirect objects of *jələkki* are of different persons then the verb agrees with one of the objects in the following order of preference: first person, second person, third person.

#### 1st vs. 2nd

- (27) *alləγ-a* [sg,instr] *ina-jəl-i* [1sg obj] *γəməkə-ŋ* [1sg,dat] *γəttə* [2sg,nom]  
 'Father he-gave-(as-a-wife)-me to-me you'  
 = '(Your) father gave you as a wife to me'.
- (28) *alləγ-a* [sg,instr] *ina-jəl-i* [1sg obj] *γənəkə-ŋ* [2sg,dat] *γəmmə* [1sg,nom]  
 'Father he-gave-(as-a-wife)-me to-you me'  
 = '(My) father gave me as a wife to you'.

#### 1st vs. 3rd

- (29) *alləγ-a* [sg,instr] *ina-jəl-i* [1sg obj] *γəməkə-ŋ* [1sg,dat] *šininkin* [sg] *ŋavakək* [sg,nom]

'Father he-gave-(as-a-wife)-me to-me his daughter'  
 = '(Her) father gave me his daughter as a wife'.

- (30) *alləγ-a* [sg,instr] *ina-jəl-i* [1sg obj] *ənəkə-ŋ* [3sg,dat] *γəmmə* [1sg,nom]  
 'Father he-gave-(as-a-wife)-me to-him me'  
 = '(My) father gave me as a wife to him'.

### 2nd vs. 3rd

- (31) *alləγ-a* [sg,instr] *jəl-γət* [2sg obj] *γənəkə-ŋ* [2sg,dat] *šininkin* [sg]  
*ŋavakək* [sg,nom]  
 'Father he-gave-(as-a-wife)-you to-you his daughter'  
 = '(Her) father gave you his daughter as a wife'.
- (32) *alləγ-a* [sg,instr] *jəl-γət* [2sg obj] *ənəkə-ŋ* [3sg,dat] *γəttə* [2sg,nom]  
 'Father he-gave-(as-a-wife)-you to-him you'  
 = '(Your) father gave you to him as a wife'.

The verbs of the *jələkki* type (if indeed there exist more in Alutor; so far we are unaware of others) might be called indirectly transitive and should be marked "ind-tr" in the dictionary.

Object constructions with indirectly transitive verbs are described by Rules 8 and 9.

Rule 8 makes an "ind-tr" verb agree with its direct object if the person of the latter has a number less than or equal to that of the person of its indirect object (see in the condition part:  $p^1 \leq p^2$ ).

Rule 9 provides for the agreement of the verb with the indirect object if its person is strictly lower-numbered than that of the direct object (i.e.,  $p^1 < p^2$ ).

In connection with what has been said above, the following interesting fact about the verb *ivək* 'to tell; to say' seems worth mentioning. In Alutor such sentences as (33) and (34) are quite common:

- (33) *in-ivi* [1sg obj]: *γəmninat qələqtumγət mənənmənat*  
 'You-said-to-me: my two-brothers let-us-both-kill-them-two'  
 = 'You said to me: «Let us both kill my two brothers»'.

- (34) *γəmnən* [1sg,instr] *t-iv-γət* [2sg obj] *γəttə* [2sg,nom]: *kətvəl*  
*mənənmənat*  
 'I I-said-to-you you: shouldn't we-two-kill-them-two'  
 = 'I said to you: «Both of us shouldn't kill both of them»'.

The forms *in-iv-i* 'you-said-to-me', *t-iv-γət* 'I-said-to-you' and the like, where *ivək* has object agreement with the addressee might prompt the conclusion that here we are dealing with another instance of indirectly transitive verbs: according to Indo-European linguistic intuitions, the noun phrase denoting



the addressee with *verba dicendi* should performe be an indirect object (in the dative case in languages like Russian or German, or with preposition like Eng. *to*, Fr. *à*, etc. in caseless languages). In Alutor there is little relevant data: pronominal reference to the addressee is usually omitted (see p. 19), so that one cannot determine its case form. However, such a conclusion would be wrong: *ivək* is not an indirectly transitive verb. Actually, Alutor has, roughly speaking, two different verbs *ivək* with different government patterns (but probably having the same or nearly the same meaning):

– *ivək* 1, or an intransitive verb, syntactically similar to Eng. *say*. It can take the addressee in the dative, but never agrees with it; *ivək* 1 has only subject agreement like all intransitive verbs:

(35) *Qilivŋawut* [sg,nom] *iv-əlqiv-i* [3sg subj] *qəlavul-əŋ* [sg,dat]  
 ‘Qilivgawut she began-to-say to-(her-) husband’.

(36) *Qilivŋawut* [sg,nom] *iv-i* [3sg subj] *qələqtumγ-əŋ* [du,dat]  
 ‘Qilivgawut she-said to-both-brothers’.

– *ivək* 2, or a transitive verb, syntactically similar to Eng. *tell*, but taking the addressee only as a direct object, i.e., in nominative:

(37) *γəmnan* [1sg,instr] *t-iv-γət* [1sg subj; 2sg obj] *γəttə* [2sg,nom]  
 ‘I I-told-you you’.

Perhaps sentences like (38):

(38) *qolin ənpə’əllay-a* [sg,instr] *in-iv-i* [3sg subj; 1sg obj]  
 ‘One-day grandmother she-told-me’

also exemplify the use of *ivək* 2 since the grammatical subject in the instrumental case (*ənpə’əllay-a*) must signal the presence in the surface-syntactic structure of (38) of a direct object *γəmmə* ‘I’ deleted by a nearly obligatory rule (‘Pronoun Deletion’; cf. p. 19).

Like any Alutor transitive verb, *ivək* 2 admits a passive-resultative construction in which the addressee represented by what seems to be a surface-structure grammatical subject appears in the nominative, the speaker (the agentive complement of *ivək*) is in the instrumental or locative (if a proper human noun; see above), and the verb agrees only with the addressee in the nominative, i.e., with its grammatical subject:

(39) *Rənnəŋalpəl’əna-k* [sg,loc] *γ-iv-laŋ* [3pl subj] *urašik-u* [pl,nom]  
 ‘By-Rannangalpal’an they-have-been-told servant-s’.

Thus, *ivək* is by no means an indirectly transitive verb, and the question of whether there exist other verbs of this kind remains open.



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*Postscript* (Montréal, fall of 1978)

The present paper was written in 1974-1975, published as a preliminary draft in 1974 (in Russian: Mel'čuk-Savvina, 1974) and not thoroughly revised since. Due to this fact, the definition of the ergative construction on pages 24-25 is not as general as it could be; cf., on this question, Mel'čuk, 1977: 26-27, in particular, Appendix, p. 47 ff., and Mel'čuk, 1979: 55ff. Nevertheless, the philosophy underlying this definition has not changed; on the contrary, it was corroborated by our own experience and the findings of many other people. Therefore, we feel that our somewhat outdated definition presents a certain interest (perhaps, historical) and should be cited in its original form.

## NOTES

1. The following is intended to explain what we mean by 'similarity in composition between two affix-sets'.

The full paradigm of an Alutor intransitive verb (which is one-actant or two-or-more actant, but takes only indirect or prepositional objects) in all tenses, moods, etc. includes 72 forms showing purely subject agreement, i.e., agreement with the grammatical subject only; thus we have a set of 72 "purely subject" affixes (which are circumfixes consisting each of a prefixal and a suffixal part). The full paradigm of a transitive verb includes 504 forms showing double, viz. "subject-object", agreement. (We do not take into account here nine so-called resultative forms that can be derived from all verbs – transitive and intransitive as well, – because they show some peculiarities in agreement. Cf. Subsection 2.4.) There are two sets of affixes here – prefixes and suffixes, and the question is which of them expresses subject agreement. If we compare purely subject forms with subject-object forms having the same person and number of subject, we see immediately that prefixal parts of

circumfixes coincide with prefixes in subject-object forms in 320 of 504 cases (63% of coincidences) while suffixal parts of circumfixes coincide with suffixes in subject-object forms in 70 cases (of the same 504, i.e., 13,50%) only. These ratios (63% vs. 13,5%) lead to the conclusion that in subject-object forms the person and number of the subject are reflected primarily in prefixes and not in suffixes.

2. Many instances of intransitive Georgian sentences with grammatical subjects in the ergative case are collected in Fähnrich (1967); a helpful discussion of ergative constructions with intransitives in Aranda may be found in Kacnel'son (1967).
3. Sometimes the Alutor instrumental case may mark an object rather than an instrument of some action. However, the verbs governing an object in instrumental case usually have meanings such that with them it is difficult to conceive of a human object: e.g., *ojik* 'to feed (on smth.)' [not 'to eat (smth./smb.)'].
4. The term is from Zaliznjak (1973: 69), q.v. also for more on problems connected with such descriptions and some ways to solve them.
5. The most annoying fact that deserves mention is the distribution of grammatical cases in agentive complements, which is exactly the same as in subjects. That is, the agentive complement is in the instrumental if it is a common noun but in the locative if it is a human proper noun:

(i) *uŋuŋu-ta* [instr] / *Qəməv-ənak* [loc] *γa-nəʃviʃʃav-lin maniwrən*  
'By-the-child/by-Qamav has-been-pitched-it a-tent'.

This happens in much the same manner as with a non-resultative form:

(ii) *uŋuŋu-ta/Qəməv-ənak təʃviʃʃav-nin maniwrən*  
'The-child/Qamav pitched a-tent'.

In (i), *uŋuŋuta* and *Qəməvənak* are agentive complements while in (ii) they are grammatical subjects.

Unfortunately, the powerful test of conjoinability cannot be applied in Alutor. Due to free deletion of pronouns we actually get here all logically possible conjoinings, so that no safe judgment can be based on it, cf.:

(iii) *ənnəʔən* [nom] *γayinməʃʔatəlqivlin, təʃələŋən* [nom] *γattillin, γarallin*  
'The-fish started-to-speak, [by-it] the-finger has-been-let-loose-it,  
it [= the fish] -fell':

(iv) *to vit-γa tamya* [instr] *γaqaṭvəlin əʃʃənjuʃʔən* [nom] *to γaviʔəlin*  
'And immediately by-the-enemy has-been-speared-he the-younger-brother  
and [he = younger brother] died'.

6. A case of the main verb object agreement with the object of a transitive object clause even across the subordinate conjunction is briefly mentioned in Inenlikej-Nedjalkov (1973: 182) for Chukchee (closely related to Alutor). Cf.:

(i) *ənan qəlγiŋu ləŋərkə-nin, iŋqun rətəŋŋəv-nen qora-ŋa*  
'He [instr] regrets-it, that [he] he-lost-it [the] reindeer [sg,nom]'

vs.

(ii) *ənan qəlγiŋu ləŋərkə-nin-et, iŋqun rətəŋŋəv-nen-at qora-t*  
'He regrets-them, that [he] he-lost-them [the] reindeer [pl,nom]'

- 7 Note that to express a situation when the subject and the object of a verb are of the same person and referentially identical (i.e., to express "reflexivity"), Alutor uses the noun *uvik*, lit. 'body', as an object, which is in this context equivalent to the English *myself, yourself, himself*, etc.; the verb has the same object agreement with this noun as with any other object noun: 3 sg. Cf. also Mel'čuk (1973a: 27-28).



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