## A typologically oriented portrait of the Athabaskan language family

Andrej A. Kibrik (kibrik@chat.ru) (Institute of Linguistics, Moscow) July 19, 2001, ALT-IV, Santa Barbara

> "It often appears as if any generalization that one draws about morphosyntax is falsified by the verb in some Athapaskan languages" (Rice 2000: 1).

#### Overview

- 1. Genealogical and geographical information
- 2. Why Athabaskan languages are special
- 3. Morphosyntactic features:

typological highpoints and thrills

- Towards lexical typology: A case study in conceptualization of motion, or was Einstein the first to discover relativity?
  Conclusion
- 5. Conclusion

## 1. Genealogical and geographical information

Na-dene (=Athabaskan-Eyak-Tlingit) Tlingit Eyak-Athabaskan Eyak **Athabaskan** (about 40 languages) Northern: Slave, Chipewyan, <u>Upper Kuskokwim</u> and other Alaskan... Pacific: <u>Hupa, Tolowa</u>...

Southern (Apachean): Navajo, Western Apache...

## 2. Why Athabaskan languages are special

 have a reputation of being very different from other North American languages "The Nadene languages, probably the most specialized of all..." (Sapir 1929) Greenberg 1987

Cf. Mithun 1999 and 2001 p.c.

- typologically exceptional in many ways
- very intricate structure: "hopeless maze of irregularities" (Young and Morgan 1972:40)
- poorly understood in typological literature due to opaque traditional descriptive terminology

#### 3. Morphosyntactic features

#### (*\** marks typological highpoints, *\*\** marks typological thrills)

NB: Most of these features are shared by all Athabaskan languages, but some may be represented to a different degree (e.g. Navajo is most polysynthetic)

#### 3.1. Basic morphosyntactic features

• among the most morphologically complex languages of the world (syntactic structure is quite simple); just about everything that can be coded morphologically (rather than lexically or syntactically) in a human language is coded so in the Athabaskan verb

- polysynthetic expression of grammatical meanings
- consistent head-marking
- accusative alignment
- verb-final word order

(1) Navajo (Young and Morgan 1943)

gał bá hí mą<sup>2</sup> ii--yę́ę tsé y-ee--y-ił --n-da-dzi-s-ne<sup>2</sup>

grey.rabbit coyote<sub>i</sub>--Encl rock<sub>j</sub> it<sub>j</sub>-by--he<sub>i</sub>-at--Pref-Distr-Pref-Pf-throw.SCO

'The grey rabbits threw rocks at that coyote (stoning him to death)'

## 3.2. ★★ (Almost) exclusively prefixing

"Standard average Athabaskan" verb template (D[erivation], I[nflection], Q[uasi-inflection])

- 18 proclitic
- 17 (b) Oblique + (a) preverb
- 16 various derivational
- 15 reflexive Accusative pronoun
- 14 iterative
- 13 distributive
- 12 incorporate
- 11 number
- 10 Accusative pronoun
- 9 non-1/2 person Nominative pronoun
- 8 transitivity decrease
- 7 qualifier
- 6 inceptive
- 5 qualifier
- 4 conjugation
- 3 mode
- 2 1/2 person Nominative pronoun
- 1 transitivity indicator
- 0 ROOT
- +1 (often opaque) old mode/aspect suffix
- +2 enclitic

## 3.3. ★ Prefixation is combined with postpositions and verb-final word order

(cf. Konstanz Universals Archive, universals #506, 892; in the sample of Bybee, Pagliuca, and Perkins 1990 Slave is the only genuine counterexample to the tendency that V-final entails suffixing.)

(2) Upper Kuskokwim Athabaskan (henceforth: UKA)

duł ko? di-zi-s-do 'I am sitting on a log'

log on Pref-Md-1Sg.Nom-sit

## 3.4. ★ Grammatically accusative without evidence for syntactic relations

- Non-promotional passive
- No inter-clausal syntactic processes referring to the syntactic statuses "subject", "direct object"...

See Kibrik 1992, 1996

#### 3.4. for some languages (Navajo), internal ("pronominal") argument type

Jelinek 1984; Van Valin 1977, Boas 1911, Duponceau 1819

- most frequently (62% cases in Navajo spoken discourse) full NPs are not there, so there is nothing to agree with
- Navajo represents priviliged, as well as less privileged participants on the verb, and in that sense does not differentiate between them

(3) Navajoy-e-i-ø-ní lóóz33.Obl<sub>j</sub>-to-33.Acc<sub>k</sub>-3.Nom<sub>i</sub>-led

'He led it to her'

• different pronominal elements on the verb can cooccur with the same full NP

(4) Navajo		'My older brother is sitting'		is sitting'	
a.	shí naaí	ø-sidá	b.	shí naaí	dzi-zdá
	1Sg.Poss:older.brother	3.Nom-sit		1Sg.Poss:older.brother	4.Nom-sit

See Jelinek 1984, Willie 1991, Kibrik 1992

• more conservative Athabaskan languages are not exactly like Navajo in that respect: UKA is pronominal-internal/nominal-external

#### (5) UKA

a.	dish	?ił t'as	b.	y-ił t'as	c.	*dish	y-ił t'as
	chicken	he.is.frying		it-he.is.frying		chicken	it-he.is.frying

See Saxon 1989

# 3.5. ★ Poor correspondence between semantic categories and template positions one semantic category in more than one alternative position

nominative

one semantic category simultaneously in more than one position

transitivity

aspect see 3.7 below

negation

multiple cases of obviously inexplicable homophony and allomorphy in grammatical morphemes 15 synchronically different *d*-morphemes in Navajo in the same part of the verb form 1Sg.Nom prefix is *sh-*, except in the perfective fom non-detransitivized verbs it is *é*-

#### 3.6. $\star\star$ Affix ordering is not governed by semantic scope/relevance

Bybee (1985: 34-35): the most common ordering of grammatical categories: [for prefixation]: (D) person – (C) mood – (B) tense – (A) aspect – ROOT

(6) Central Alaskan Yup'ik (Eskimo-Aleut, Mithun 1999: 407) | DERIVATION | INFLECTION ROOT iterngnaqe- rraar-'he always wanted to enter first' turllruuq Pastentertry.tofirstrepeatedly-Indic-3Sg TENSE ASPECT MOOD PERSON

Bybee 1985: 35: "in one language [in the sample - A.K.], Navaho, the person markers occur closer to the stem than tense markers".

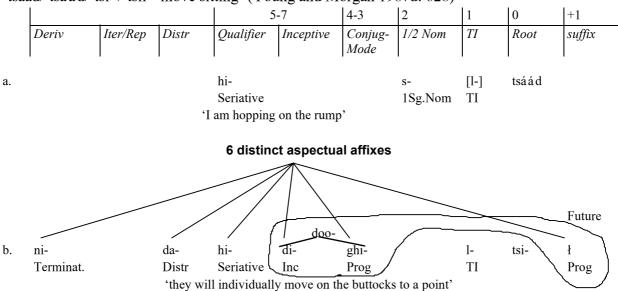
(7) Navajo					
nihideestsił 'I will move on the buttoo			ne buttock	ts to a point'	
DERIVATIO	DN	INFLEC	CTION		ROOT
ni-	hi-	di-	ghi-	S-	l- tsił
Term-	Ser-	Inc-	Prog-	1Sg.Nom-	Val-move.sitting
DERIVASP	LEXASP	INFLASP	TENSE	PERSON	VALROOT
В	А	С	С	D	Scope/relevance ranks

See Rice 2000

#### 3.7. **\* \*** Extreme concern for expressing aspectual meanings

(8) Navajo

-tsaad/-tsáád/-tsi?/-tsił 'move sitting' (Young and Morgan 1987d: 628)

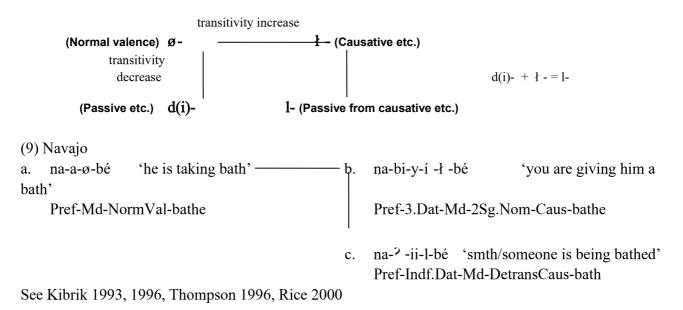


See Kari 1979, Axelrod 1993.

#### 3.8. **★** Bizarre morphophonemics

#### 3.9. ★ Rich system of transitivity marking

Pre-stem morphemes: Transitivity indicators (TIs, traditional term: "classifier"): ø-, ł-, d(i)-, l-



3.10. **\*\*** Verb lexical semantics: strikingly unusual patterns of conceptualization

#### 4. Towards lexical typology:

A case study in conceptualization of motion, or was Einstein the first to discover relativity?

#### 4.1. Classificatory verbs

(10) UKA, as well as all further examples

'I carry it' ghi-s-ROOT Prog-1Sg.Nom-ROOT

Rock	gun	gloves	water in a bucket	baby	
ghi-s- ? oł	ghi-s-teł	ghi-s-[d-]lał	ghi-s-koł	ghi-[s-]ł tał	

Same roots are used for series of verbs meaning 'bring', 'give', 'wash', 'find', 'lose', etc., etc. Classificatory verb are based on class membership of the Absolutive

#### 4.2. Consider 4 stereotypical meanings of classificatory verbs

- (i) 'lie'
- (ii) 'move (intr)'/'fall'
- (iii) 'throw'/'drop'
- (iv) 'carry'

#### 4.3. Different roots for 'lie' (i) and 'move'/'fall' (ii)

	Stiff compact (rock)	Stiff diffuse (gun)	Multiple (gloves)	Animate (baby)
(i) 'lie'	-20	-to	-la	-ta
(ii) 'move'/'fall'	-ninh	-gheł	-dak	-уо

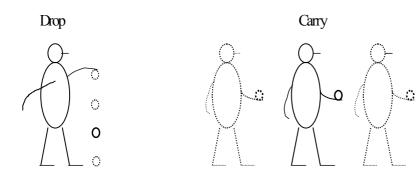
The classifications of objects are similar but not identical; there are more classes for 'move (intr)'/ 'fall' verbs; apparently the construal of movement requires more relevant distinctions than being at rest.

#### 4.4. 'Throw'/'drop'(iii) verbs are causatives from 'move'/'fall' (ii): causative formation

(11)	a.	dichinh	no-di-ghe-ø-ghił	'the stick fell down'	
		stick	down-Pref-Md-NormVal-SDO.move	.Pf	
	b.	dichinh stick	no-di-ghi-ł -ghił down-Pref-Md-[1Sg.Nom-]Caus-SD0	'I dropped the stick' O.move.Pf	
4.5. 'Carry' (iv) verbs' roots coincide with those of the 'lie' (i) verbs					

(12) a.	tudzile	zi-ø-tonh	'the ice pick lies'
	ice.pick	Md-NormVal-SDO.lie.Pf	
b.	tudzile	di-ghi-s-ø-teł	'I carry an ice pick'
	ice.pick	Pref-Prog-1Sg.Nom-NormVal-S	SDO.lie.Prog

- NB: There is no increase in transitivity in the 'carry' verbs compared to 'lie' verbs
- Reason: In carrying, unlike throwing/dropping, the patient moves together with the agent. In carrying, the patient remains at rest *relative* to the agent.



### 4.6. Athabaskan Einsteins

"The theory of relativity says that all laws of physics are the same in all inertial frames of reference. An inertial frame of reference is a frame of reference which is moving at a constant velocity relative to an observer. The observer's frame of reference is generally considered to be "at rest", although this does not mean the same thing as Newton's absolute rest. A person making an observation about something else that is in motion can consider himself at rest relative to the object he is observing. <...> If any two people observed each other as they moved in different directions, each person could consider himself at rest, and the other person moving. Both points of view are equally valid, according to special relativity." (Popular Internet inroduction to the Special theory of relativity; http://www.rpnet.net/~bart/frames.phtml?general)

- Athabaskans have known for a long time before Einstein and Galileo: object location/motion is different depending on the frame of reference
- Carrying and dropping may seem similar actions of movement causation, from an objective perspective. But these types of movements are conceptualized differently, in a relativist fashion, in the Athabaskan languages
- Carrying is conceptualized as a subcase of being at rest, because when X is carried its frame of reference moves together with X, and relative to the Agent, X (=the Absolutive) is at rest.
  - 'A carries X' essentially means 'X is at rest within the frame of reference of moving A'.
  - The idea of movement is rendered not by the root but by derivational or inflectional affixes.
- On the contrary, throwing or dropping is conceptualized as causing independent movement relative to the Agent's frame of reference.
- So in reporting such motion events Athabaskans take the perspective of the agent, not of an external observer (speaker).

## 4.7. Animacy against relativity: carried animate patients are not treated as being at rest

(13) a.	to-ø-tał 'he will lie down'	b. si-gh-e-ł -tał 'you carry me' (Collins, Petruska 1993: 52)
	Fut-NormVal-An.lie.Prog	1Sg.Acc-Md-2Sg.Nom-Caus-An.lie.Prog

- Animate Absolutives have their own frame of reference and their physical movement is understood as linguistic movement as well, even when they are at rest relative to the agent
- So in the Atabaskan conceptual system relativity of motion can be overruled by animacy

## 5. Conclusion

I am exploring the hypothesis that:

- A better understanding of the system of event concepualization, as realized in the Athabaskan verb root, can help to tackle the most intricate problems of Athabaskan grammar, such as:
  - non-scope-governed morpheme order
  - excessive aspectual marking
  - apparent irregularity and typological exceptionality
- From this one can proceed with a lexical typology of languages, i.e. a cross-linguistic comparison of conceptualization profiles in certain lexical domains

#### NON-OBVIOUS ABBREVIATIONS IN GLOSSES

Md – one of mode (tense-aspect-	Nom – nominative	Distr – distributive plural
modality) affixes	Acc – accusative	Indf – indefinite
Pf – perfective	Dat – dative	Val – valence marker
Prog progressive	An – animate entity	NormVal – normal valence
Fut – future	SCO – stiff compact object	TI – transitivity indicator
Inc inceptive	SDO – stiff diffuse object	Encl-enclitic
		Pref – prefix of irrelevant function

#### References

- Axelrod, Melissa. 1993. *The semantics of time. Aspectual categorization in Koyukon Athabaskan*. Lincoln, Nebraska: University of Nebraska Press.
- Boas, Franz. 1911/1964. *Introduction to the Handbook of American Indian Languages*. Washington, D.C.: Bureau of American Ethnology, 1–83.
- Bybee, Joan. 1985. *Morphology: A study of the relation between meaning and form*. Amsterdam: Benjamins.
- Bybee, Joan, William Pagliuca, and Revere Perkins. 1990. Bybee, Joan L., William Pagliuca, and Revere D. Perkins. 1990. Back to the future. In: E.C.Traugott and B.Heine (eds.), *Approaches to Grammaticalization* vol. II, 17-58. Amsterdam: Benjamins.
- Collins, Ray, and Betty Petruska. 1993. School dictionary of Upper Kuskokwim Athabaskan. Revised electronic edition, unpublished.
- Duponceau, Peter S. 1819. "Report of the Historical and Literary Committee to the American Philosophical Society". *Transactions of the Historical and Literary Committee of the American Philosophical Society*. Vol. 1.
- Jelinek, Eloise. 1984. "Empty categories, case, and cofigurationality." *Natural Language and Linguistic Theory* 2: 39–76.
- Kari, James. 1979. *Athabaskan verb theme categories: Ahtna*. ANLC Research Papers 2. ANLC: Fairbanks.
- Kibrik, Andrej A. 1992. "Relativization in polysynthetic languages". *International Journal of American Linguistics* 58: 135–156.
- Kibrik, Andrej A. 1993. Transitivity increase in Athabaskan languages. In: B.Comrie and M. Polinsky (eds.) *Causatives and transitivity*, Amsterdam: Benjamins, 47-67.
- Kibrik, Andrej A. 1996. Transitivity decrease in Athabaskan languages. In: E. Jelinek et al. (eds.) *Studies in Athabaskan linguistics*. Albuquerque: UNM Press, 259-304.
- Mithun, Marianne. 1999. Languages of Native North America. Cambridge: CUP.
- Rice, Keren. 2000. *Morpheme order and semantic scope. Word formation in the Athapaskan verb.* Cambridge: CUP.
- Sapir, Edward. 1929. Central and North American languages. *Encyclopedia Britannica*, vol. 5, 138-141.
- Saxon, Leslie. 1989. Lexical versus syntactic projection: The configurationality of Slave. In E.Cook and K. Rice (eds.) *Athapaskan linguistics: Current perspectives on a language family*. Berlin: de Gruter.
- Thompson, Chad. 1996. The Na-Dene middle voice: An impersonal source of the D-element. *International Journal of American Linguistics* 62: 351-378.
- Willie, MaryAnn. 1991. Pronouns and obviation in Navajo. UNM dissertation. Albuquerque.
- Young, Robert, and William Morgan. 1943. *The Navaho language*. Washington, DC: Indian Service. Young, Robert, and William Morgan. 1972.
- Young, Robert, and William Morgan. 1987. *The Navajo language. A grammar and colloquial dictionary*. Albuquerque: University of New Mexico Press.