

ABSTRACT

The purpose of the paper is 1) to single out the basic types of argument transfer for Ket that have the direct affect on verb-internal coding of valence change, and single out the limited number of formal strategies corresponding to argument transfer types out of the diversity of subject and object markers in Ket, 2) to give the classification (see below) of the valence-changing operations according to the basic types of argument transfer in Ket corresponding to formal verb-internal coding strategies¹, and 3) to uncover some peculiar affects of semantic and argument distribution features on the Ket verb formation. The main fact in the focus of attention is regular direct correspondence between the generalized basic types of argument transfer listed in subparagraphs under 1.1, 1.2, 1.3, etc., and basic formal verb-internal coding strategies. The data under study are the pairs of verbs associated as the input and output constructions corresponding to basic valence changing operations listed below in sub-subparagraphs under 1.1.1, 1.1.2, and further.

1. Valence-decrease operations.

- 1.1. The argument from input object function transfers to output subject, removing input subject $Sx + Ox \rightarrow \emptyset y + Sy$
- 1.1.1. Anticausative $Sx [cause] + Ox \rightarrow \emptyset y + Sy [cause]$
- 1.1.2. Resultative $Sx [cause] + Ox \{action\} \rightarrow \emptyset y [\emptyset] + Sy \{state\}$
- 1.2. The argument from the input object function transfers to output subject, preserving the input subject $Sx + Ox \rightarrow Sx + Sy$
- 1.2.1. Reflexive $Sx + Ox \rightarrow Sx + Sy$ (coreferential)
- 1.2.2. Reciprocal $Sx + Ox \rightarrow Sx + Sy$ (plural)
- 1.2.3. Autocausative $Sx + Ox \rightarrow Sx + Sy$ (quasi-coreferential)
- 1.2.4* “Auto-instrumental” $Sx (+ Ox) \rightarrow Sx [+Sy Instrument] (+ Ox)$
- 1.3. The argument from the input object is removed, preserving the input subject
- 1.3.1. Deobjective $Sx + Ox \rightarrow Sy + \emptyset y$

2. Valence-increase operations.

- 2.1. The argument added enters the output subject position, shifting the input subject to output object position $/\{action\}/+S$
- 2.1.1. Causative $/Sx \{action\}/ \rightarrow Sy [cause] + /Oy \{action\}/$
- 2.2. The argument added enters the output object position, preserving the input subject: transitive verb (rare type in Ket) $Sx \rightarrow Sx + Oy$
- 2.3. The argument added enters the output object position, input subject and object preserved: applicative
- 2.3.1. Thematic (rare type in Ket) $/Sx + Ox/ \rightarrow /Sx + Ox/ + Oy$
- 2.3.2* Instrumental $/Sx + Ox/ \rightarrow /Sx + Ox/ + [Oy Instrument]$

¹ In the classification the emphasis is on morphological and syntactic valence change by argument transfer in basic types, though comments on semantic additional information are given, when it is relevant, in square brackets (semantic feature of the argument) and braces (semantic feature of the situation); slashes enclose the part of the input construction preserved in the output, even if the functional status of the arguments changed, additional comments are given in round brackets.

(*) marks the cases where semantic valence change does not affect syntactic valence change, but affects morphological coding of changes in argument structure. The left part of the equation shows input construction, the right part – output construction, the succession of the arguments is preserved the same in the right part of the equation as in the left, S – subject, O – object, x – input argument or output argument preserving its status, y – output argument (if there is a change in its status), ‘ \emptyset ’ stands for deletion of the argument or a feature, that was given in the left part of an equation in this place.

Handout 1

Chart 1. Actant conjugations - four argument marking types, basic models*.

	intransitive	transitive	intransitive	transitive
conjugation	1. Active		4. Inactive coref	
Subject	P8 Act.S (+P-1 SubjPL)	P8 Act.S (+P-1 SubjPL)	P8 Act.S (+P-1 SubjPL)	P8 Act.S (+P-1 SubjPL)
Subject coreferential			P1 InactCoref.S	P1 InactCoref.S
Object		P4/3/1 ActO		P6 Abs.O
conjugation	2. Absolute		3. Absolute coref	
Subject	P6 Abs.S	P8 Act.S (+P-1 SubjPL)	P8 Act.S	P8 Act.S
Subject coreferential			P6 AbsCoref.S	P6 AbsCoref.S
Object		P6 AbsO		P4/3/1 ActO

Chart 2. Actant conjugations - four argument marking types, basic and derived models, derivational relation of argument marking series.

	intran-sitive	transitive	derived intransitive (resultative)	intransitive	transitive	derived intransitive (anticausative)
conjugation	1. Active			4. Inactive coref		
Subject	P8 Act.S (+P-1 SubjPL) = agent	P8 Act.S (+P-1 SubjPL) = agent	P4/3/1 InAct.S ← P4/3/1 ActO = patient	P8 Act.S (+P-1 SubjPL)	P8 Act.S (+P-1 SubjPL)	P3 InAct.S ← P4/3/1 ActO = patient
Subject coreferential				P1 InactCoref.S ← P4/3/1 ActO	P1 InactCoref.S ← P4/3/1 ActO	P1 InactCoref.S ← P4/3/1 ActO
Object		P4/3/1 ActO = patient			P6 AbsO	
conjugation	2. Absolute			3. Absolute coref		
Subject	P6 Abs.S	P8 Act.S (+P-1 SubjPL)	P6 Abs.S ← P6 AbsO	P8 Act.S	P8 Act.S	
Subject coreferential				P6 AbsCoref.S ← P6 AbsO	P6 AbsCoref.S ← P6 AbsO	
Object		P6 AbsO			P4/3/1 ActO	

* Act.S is obligatorily animate and refers to agent, Act.O is obligatorily inanimate and refers to patient, Abs.O identical marker as Abs.O

Handout 2. Illustrations. Active and Absolutive conjugation verbs, verb-internal argument markers.

Chart 3. Positions determining actant conjugations and the argument marker series cross-referencing the person, number and class (for 3rd person singular) of the arguments .

position	P8	P6	P6 (ablative series – labialized before ablative k in P5)	P6 (coreferential series – redundant subject markers)	P4	P3	P1	P-1
person								
1SG	<i>di</i>	<i>ba~bo</i>	<i>bo</i>	<i>ba~bo</i>	-	-	<i>di</i>	-
2SG	<i>ku</i>	<i>ku</i>	<i>ku</i>	<i>ku</i>	-	-	<i>ku</i>	-
3M	<i>du</i>	<i>a~o~bu</i>	<i>o</i>	<i>bu</i>	<i>a (o)</i>	-	<i>a</i>	-
3F	<i>da~də</i>	<i>i~u~bu</i>	<i>u</i>	<i>bu</i>	<i>i</i>	-	<i>a</i>	-
3INAN (SG or PL)	<i>da~də</i>	<i>Ø~i~u~bu</i>	<i>u</i>	<i>bu</i>	-	<i>b</i>	<i>a</i>	-
1 PL	<i>di</i>	<i>dəŋ</i>	<i>dəŋ</i>	<i>dəŋ</i>	-	-	<i>dəŋ</i>	<i>n</i>
2 PL	<i>ku</i>	<i>kəŋ</i>	<i>kəŋ</i>	<i>kəŋ</i>	-	-	<i>kəŋ</i>	<i>n</i>
3 ANIM.PL	<i>du</i>	<i>aŋ~oŋ~bu</i>	<i>oŋ</i>	<i>bu</i>	<i>aŋ (oŋ)</i>	-	<i>aŋ</i>	<i>n</i>

Table 1. Partial paradigm of the verb “roll something/somebody downhill” (present tense)

Illustrations are given in the table in the same order as we give them for all verb forms further:

the form of the verb, translation, positions, glosses SJ subject marker, O – object marker, RS – redundant Coreferential subject marker, M – masculine, F – feminine, INAN – inanimate, PL – plural, SG - singular

Argument coding configuration: **P8 Act.S-ablative⁵-P4/3/1 Act.O-roll⁰-(P-1 SubjPL)** refers to **Active** conjugation infinitive **tiŋ roll***

the form of the verb	translation	positions	glosses
(t)kiytaŋ	<i>I roll it downhill</i>	di ⁸ -k ⁵ -b ³ -taŋ ⁰	1SG.SJ ⁸ -ablative ⁵ -3INAN.O ³ -roll ⁰
(k)kiŋtaŋ	<i>you roll me downhill</i>	ku ⁸ -k ⁵ -di ¹ -taŋ ⁰	2SG.SJ ⁸ -ablative ⁵ -1SG.O ¹ -roll ⁰
da ⁸ kajtaŋ	<i>she rolls him downhill</i>	da ⁸ -k ⁵ -a ⁴ -(j)-taŋ ⁰	3F.SJ ⁸ -ablative ⁵ -3M.O ⁴ -roll ⁰
(t)kiŋtaŋin	<i>we roll her downhill</i>	di ⁸ -k ⁵ -i ⁴ -(j)-taŋ ⁰ -n ⁻¹	1PL.SJ ⁸ -ablative ⁵ -3F.O ⁴ -roll ⁰ -S.PL ⁻¹
(k)kirantaŋin	<i>you (pl) roll us downhill</i>	ku ⁸ -k ⁵ -daŋ ¹ -taŋ ⁰ -n ⁻¹	2PL.SJ ⁸ -ablative ⁵ -1PL.O ¹ -roll ⁰ -S.PL ⁻¹
(t)kiyantaŋin	<i>they roll you (pl) downhill</i>	du ⁸ -k ⁵ -kaŋ ¹ -taŋ ⁰ -n ⁻¹	3PL.SJ ⁸ -ablative ⁵ -2PL.O ¹ -roll ⁰ -S.PL ⁻¹
da ⁸ kanataŋ	<i>she rolls them downhill</i>	da ⁸ -k ⁵ -aŋ ⁴ -(a)-taŋ ⁰	3F.SJ ⁸ -ablative ⁵ -3PL.O ⁴ -roll ⁰

* Note that within this view on the basic model we consider as non-derived verbs that cannot be consider as derived in respect to any other finite verb, the infinitive is the basic element that bears the lexical meaning is a separate verb lexeme in Ket, and a number of verbs don't have any corresponding infinitive, sometimes though there are 2 or more infinitives with the same meaning used in competing finite verb formation models.
interdependence of valence change of a verb and argument transfer

Handout 3. Illustrations. Basic models. Active and Absolutive conjugation verbs, verb-internal argument markers.

Table 2 Transitive and intransitive verbs of active and absolutive conjugations.

<p>Active conjugation transitives arguments P8 Act.S (+SubjPL⁻¹) + P4/3/1 Act.O</p>	<p>Absolutive conjugation arguments P8 Act.S (+SubjPL⁻¹) + P6 Abs.O</p>
<p>Active transitive 1 infinitive do cut dayro I cut it (e.g. hair), shave it (beard) di⁸-a⁴-b³-do⁰ 1SG.SJ⁸-durative⁴-3INAN.O³-cut⁰</p>	<p>Absolutive transitive 1 infinitive taɣaj shoot, hit dataɣajɔksa she shoot at him da⁸-taɣaj⁷-o⁶-k⁵-(s)-a⁰ 3F.SJ⁸-shoot⁷-3M.O⁶-ablative⁵-event⁰</p>
<p>Active transitive 2 infinitive tiŋ roll dakajtaŋ she rolls him downhill da⁸-k⁵-a⁴-(j)-taŋ⁰ 3F.SJ⁸-ablative⁵-3M.O⁴-roll⁰</p>	<p>Absolutive transitive 2 infinitive hataŋ hug (t)hataŋɔŋ(g)avetŋ they hug them du⁸-hataŋ⁷-oŋ⁶-k⁵-bet⁰-n⁻¹ 3PL.SJ⁸-hug⁷-3PL.O⁶-ablative⁵-activity⁰-S.PL⁻¹</p>
<p>Active transitive 3 infinitive tiŋ roll (t)tiŋ(g)iyto I plug it di⁸-tiŋ⁷-k⁵-b³-to⁰ 1SG.SJ⁸-roll(?)⁷-ablative(?)⁵-3INAN.O³-place⁰</p>	<p>Absolutive transitive 3 infinitive taŋaj pull dataŋajɔksa she pulls him da⁸-taŋaj⁷-o⁶-k⁵-(s)-a⁰ 3F.SJ⁸-pull⁷-3M.SJ⁶-ablative⁵-event⁰</p>
<p>intransitives argument P8 Act.S (+SubjPL⁻¹)</p>	<p>intransitives argument P8 Act.S (+SubjPL⁻¹)</p>
<p>Active intransitive 2 infinitive isqo catch fish disqoavet I catch fish di¹-isqo⁷-a⁴-vet⁰ 1SG.SJ⁸-catch.fish⁷-durative⁴-3INAN.O³-activity⁰</p>	<p>Absolutive intransitive 1 infinitive sa:l spend the night bayissal I spend the night (once) ba⁶-k⁵-(s)-sal⁰ 1SG.SJ⁶-adessive⁵-spend.night⁰</p>

Handout 4. Illustrations. Derived models for decreasing valence. Inactive coreferential and absolutive coreferential verbs.

Table 3.

conjugation	<i>Absolutive coreferential</i> intransitive (corresponding verbs <i>Absolutive</i> transitive)	conjugation	<i>Inactive coreferential</i> intransitive (corresponding verbs <i>Active</i> transitive)
1a. reflexive	(t)taʒajbu ^{la} he shot/hit himself du ⁸ -taʒaj ⁷ -bu ⁶ -(k ⁵)-il ² -a ⁰ 3M.SJ ⁸ -shoot ⁷ -3RS ⁶ -ablative ⁵ -PT ² -event ⁰ P8 Act.S⁸ -shoot ⁷ - P6 AbsCoref.S⁶ -ablative ⁵ -PT ² -event ⁰ (see <i>Absolutive</i> transitive 1)	7. anti-causative	tiŋgavato it gets plugged tiŋ ⁷ -k ⁵ -a ⁴ -b ³ -a ¹ -to ⁰ roll(?) ⁷ -ablative(?) ⁵ -durative ⁴ -3INAN.SJ ³ -3RS ¹ -place ⁰ roll(?) ⁷ -ablative(?) ⁵ -durative ⁴ - P3 InAct.S³ -P1 InactCoref.S ¹ -place ⁰ (see <i>Active</i> transitive 3)
2. reciprocal	(t)hataŋbʉksivetn they hug each other du ⁸ -hataŋ ⁷ -bu ⁶ -k ⁵ -(s)-bet ⁰ -n ⁻¹ 3PL.SJ ⁸ -hug ⁷ -3RS ⁶ -ablative ⁵ -activity ⁰ -SJ.PL ⁻¹ P8 Act.S⁸ -hug ⁷ - P6 Abs.O⁶ -ablative ⁵ -activity ⁰ - SubjPL⁻¹ (see <i>Absolutive</i> transitive 2)	1b. reflexive	du ^s qad ^d ij I warm myself up di ⁸ -us ⁷ -q ⁵ -a ⁴ -di ¹ -dij ⁰ 1SG.SJ ⁸ -warm ⁷ -causative ⁵ -durative ⁴ -1SG.RS ¹ -transitive ⁰ P8 Act.S⁸ -warm ⁷ -causative ⁵ -durative ⁴ - P1 InactCoref.S¹ -transitive ⁰ (see Causative 2)
3a. auto-causative	datana ^j buksa she stretches da ⁸ -taŋaj ⁷ -bu ⁶ -k ⁵ -(s)-a ⁰ 3F.SJ ⁸ -pull ⁷ -3RS ⁶ -ablative ⁵ -event ⁰ P8 Act.S⁸ -pull ⁷ - P6 AbsCoref.S⁶ -ablative ⁵ -event ⁰ (see <i>Absolutive</i> transitive 3)	3b. auto-causative	kivatiŋ it rolls downhill k ⁵ -b ³ -a ¹ -tiŋ ⁰ ablative ⁵ -3INAN.SJ ³ -3RS ¹ -roll ⁰ ablative ⁵ - P3 InAct.S-P1 InactCoref.S- roll⁰ (see <i>Active</i> transitive 2)
4. auto-instrumental	da ^k utoli ^j buksa она свистнет da ⁸ -kutolij ⁷ -bu ⁶ -k ⁵ -(s)-a ⁰ 3F.SJ ⁸ -kutolij ⁷ -3RS ⁶ -ablative ⁵ -event ⁰ P8 Act.S⁸ -kutolij ⁷ - P6 AbsCoref.S⁶ -ablative ⁵ -event ⁰ (no transitive)	conjugation	Active intransitive (resultative) (corresponding verbs <i>Active</i> transitive)
5. deobjective	(t)taʒajbuksa he stings (said of a wasp) du ⁸ -taʒaj ⁷ -bu ⁶ -k ⁵ -(s)-a ⁰ 3M.SJ ⁸ -shoot ⁷ -3RS ⁶ -ablative ⁵ -event ⁰ P8 Act.S⁸ -shoot ⁷ - P6 AbsCoref.S⁶ -ablative ⁵ -event ⁰ (see <i>Absolutive</i> transitive 1)	6b. resultative	avaro it is cut a ⁴ -b ³ -a ¹ -do ⁰ durative ⁴ -3INAN.SJ ³ -resultative ¹ -cut ⁰ durative ⁴ - P4/3/1 InAct.S³ -resultative ¹ -cut ⁰ (see <i>Active</i> transitive 1)
conjugation	<i>Absolutive</i> intransitive (resultative) (corresponding verbs <i>Absolutive</i> transitive)	6c. resultative	usqavarij it is warmed up us ⁷ -q ⁵ -a ⁴ -b ³ -a ¹ -rij ⁰ warm ⁷ -causative ⁵ -durative ⁴ -3INAN.SJ ³ -resultative ¹ -intransitive ⁰ warm ⁷ -causative ⁵ -durative ⁴ - P4/3/1 InAct.S³ -resultative ¹ -intransitive ⁰ (see Causative 1)
6a. resultative	taʒajoksaj he is shot/hit taʒaj ⁷ -o ⁶ -k ⁵ -(s)-aj ⁰ shoot ⁷ -3M.SJ ⁶ -ablative ⁵ -state ⁰ shoot ⁷ - P6 Abs.S⁶ -ablative ⁵ -state ⁰ (see <i>Absolutive</i> transitive 1)		

Handout 5. Illustrations. Derived models for increasing valence.

Causative verbs

Active model causative verbs

arguments **P8 Act.S + P4/3/1 Act.O**

Table 4.

causative verb derived from infinitive denoting causing state	causative verb derived from infinitive denoting action with intransitive potential
infinitive us'qat <i>make warm</i> Causative 1 du sqayra <i>I warm it up</i> di ⁸ -us ⁷ -q ⁵ -a ⁴ -b ³ -da ⁰ 1SG.SJ ⁸ -warm ⁷ -causative ⁵ -durative ⁴ -3INAN.O ¹ -transitive ⁰ Causative 2 ku sqad da <i>you warm me up</i> ku ⁸ -us ⁷ -q ⁵ -a ⁴ -di ¹ -da ⁰ 2SG.SJ ⁸ -warm ⁷ -causative ⁵ -durative ⁴ -1SG.O ¹ -transitive ⁰	infinitive isqo <i>catch fish</i> Causative 3 di sqoqad da <i>he makes me go fishing (catch fish)</i> du ⁸ -isqo ⁷ -q ⁵ -a ⁴ -di ¹ -da ⁰ 3M.SJ ⁸ -catch.fish ⁷ -causative ⁵ -durative ⁴ -1SG.O ¹ -transitive ⁰ infinitive qot <i>cry, weep</i> Causative 4 (d)qot qad da <i>he makes me cry</i> du ⁸ -qot ⁷ -q ⁵ -a ⁴ -di ¹ -da ⁰ 3M.SJ ⁸ -cry ⁷ -causative ⁵ -durative ⁴ -1SG.O ¹ -transitive ⁰

Table 5. Applicative verbs

Absolutive model

arguments **P8 Act.S (+SubjPL⁻¹) + P6 Abs.O**

infinitive qil <i>put (smb/smth) onto or into</i>	
transitive verb daqaj dil <i>she dresses him</i> da ⁸ -q ⁵ -a ⁴ -(j)-dil ⁰ 3F.SJ ⁸ -inside ⁵ -3M.O ⁴ -put.onto ⁰	applicative verb daa iv dil <i>she dresses him in something</i> da ⁸ -a ⁶ -q ⁵ -b ³ -dil ⁰ 3F.SJ ⁸ -3M.O ⁶ -inside ⁵ -applicative ³ -put.onto ⁰

Table 6. Transitivity verb

infinitive **qi** sell

intransitive verb arguments P8 Act.S + P1 InactCoref.S	transitive verb arguments P8 Act.S + P1 InactCoref.S + Abs.O
daila ga <i>she sells</i> da ⁸ -il ² -a ¹ -qa ⁰ 3F.SJ ⁸ -past.tense ² -3RS ¹ -sell ⁰	da la ga <i>she sells him</i> da ⁸ -o ⁴ -il ² -a ¹ -qa ⁰ 3F.SJ ⁸ -3M.O ⁴ -past.tense ² -3RS ¹ -sell ⁰

Handout 6.

Chart 4.

The interdependence of conjugation type derivation on the categories of derived transitives and intransitives

