Stilo, Donald. 2018. Preverbal and Postverbal Peripheral Arguments in the Araxes-Iran Linguistic Area. Invited lecture at the conference *Anatolia-Caucasus-Iran: Ethnic and Linguistic Contacts,* Yerevan University, 10-12 May 2018.

Երեվան, 5 մայիսի, 2108

The research for today's study includes 29 languages and dialects from the *Araxes-Iran Linguistic Area* (ultimate goal: 60 languages, see Stilo, in progress).

As a prelude for this discussion of preverbal vs. postverbal placement of *peripheral* arguments, we will first examine the position of the ***core*** Patient/Direct Object argument (OV/VO). Direct Objects occur in *postverbal* position as a marginal, but still possible, pattern in most languages of the AILA zone.

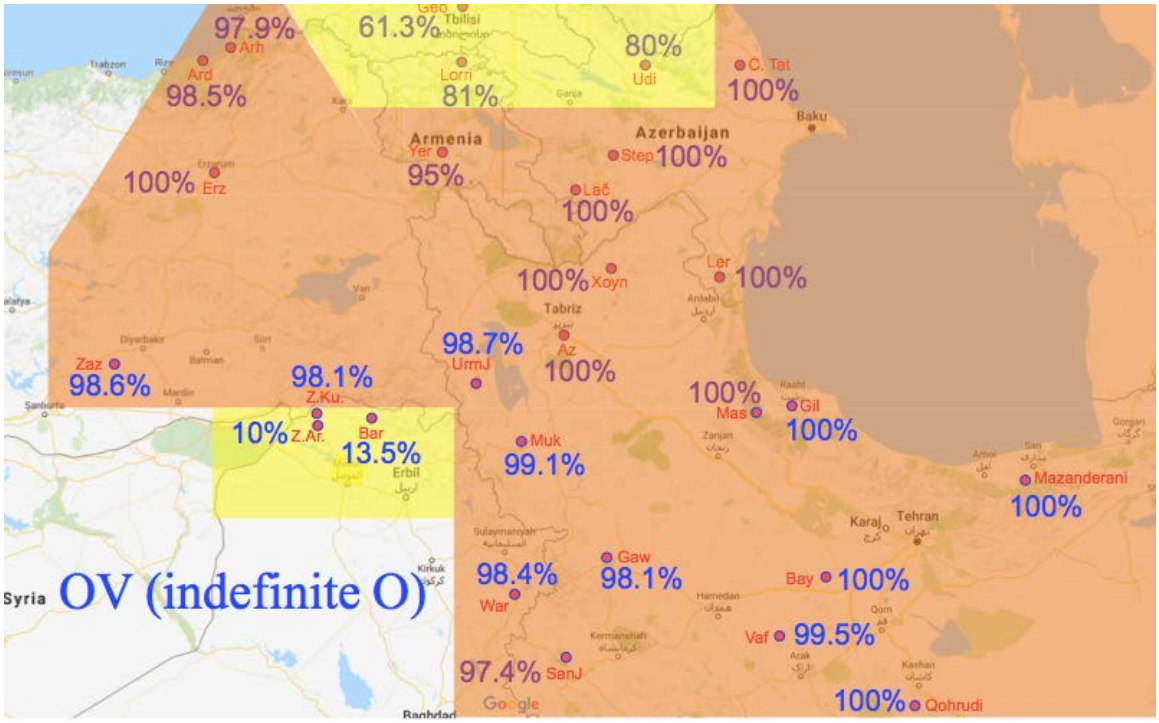
All percentages *on maps and in tables* are given in terms of *preverbal* position, e.g.:

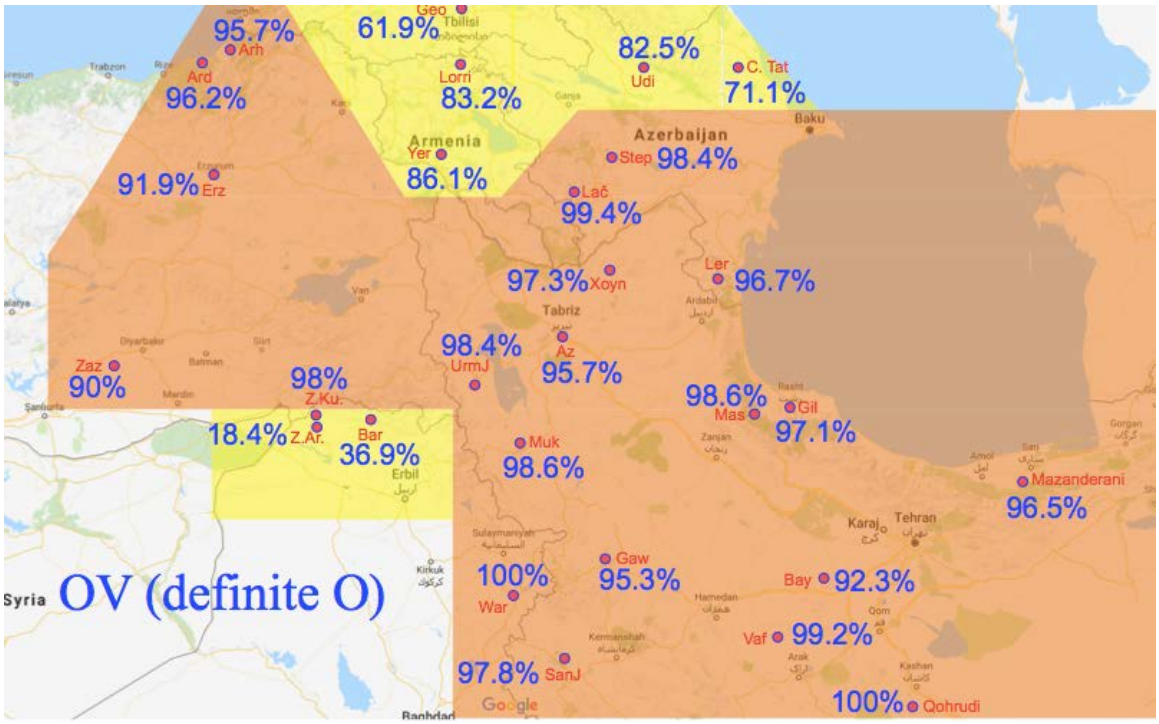
90% = preverbal dominates (i.e. mostly *left-branching*) for the given feature

10% = preverbal is minor (i.e. mostly *right-branching*) for the given feature

26 of the 28 language varieties in my AILA database are predominately OV. Of the four Aramaic varieties in my database, two are predominately OV (97 - 98%) and two are predominately VO (87 – 90%).

Definite Objects are slightly more flexible in their OV placement than indefinites in two ways: 1) slightly lower percentages and 2) a slightly wider geographic distribution):





PERIPHERAL ARGUMENTS

The *peripheral arguments* that I have collected from my database include the following:

Instrumental	84.8%
Ablative	81.3%
Locative	78.5%
Comitative	77.7%
Addressee	79.0%
Benefactive	69.9%
Recipient	58.9%
Goal	26.9%

Four lowest arguments, moving toward postverbal

I will discuss these two groups separately below

With the exception of three peripheral languages, we find that Ablatives are predominately preverbal

Ablative	90% – 100%	12 languages
	80% – 89.5%	6 languages
	73.2 – 79.6%	7 languages
	55.6%	Georgian
	18.8%	Barwar Aramaic
	5.6%	Zakho Aramaic

In the central areas of the AILA zone the Ablative, Locative, Comitative, and Instrumental are generally preverbal, but as we progress *westwards* through the Zagros area to Iraq and *northwards* towards the South Caucasus (Georgia and the north of Azerbaijan), the frequency of the preverbal position of these arguments, although still predominately preverbal, begins to diminish. Let's examine only Iranian languages first:

ABLATIVE	
Masulei	100%
Lačin	98.8%
Qohrudi	95.7%
Vafsi	93.1%
Zazaki/Dimli	91.3%
Khoynarudi	89.5%
Rashti	88.9%
Mazanderani	85.9%
Warmawa K.	84.2%
Gawrajui	82.5%
Mukri	79.6%
Cauc. Tat	73.9%
Zakho Kurd	73.5%
Lerik	73.2%

LOCATIVE	
Masulei	100%
Lačin	96.3%
Mazanderani	90.8%
Qohrudi	90.5%
Khoynarudi	87.8%
Zazaki/Dimli	87.1%
Mukri	85.7%
Gawrajui	83.6%
Rashti	81.8%
Vafsi	81.4%
Cauc. Tat	81.3%
Lerik	71.7%
Warmawa K.	67.7%
Zakho Kurd	64.6%

Throughout this discussion we will see that the languages of the Zagros mountain areas and the South Caucasus generally fluctuate between being inside the core areas and being outside them in the peripheral areas for these isoglosses (e.g. Mukri Ablative vs. Locative ↙):

ABLATIVE	
Masulei	100%
Lačin	98.8%
Qohrudi	95.7%
Vafsi	93.1%
Zazaki/Dimli	91.3%
Khoynarudi	89.5%
Rashti	88.9%
Mazanderani	85.9%
Warmawa K.	84.2%
Gawrajui	82.5%
Mukri	79.6%
Cauc. Tat	73.9%
Zakho Kurd	73.5%
Lerik	73.2%

All in the western and northern peripheries

ABLATIVE	
Stepanakert	100%
Arhavi Laz	100%
Ardeşen	98.7%
Karin Arm.	96%
Lorri	93.8%
Tabrizi	93.5%
Bayat Azeri	92.1%
Armenian	85.7%
Sanandaj A.	78.8%
Jewish Urmi	74.6%
Vartashen Udi	73.9%
Georgian	55.6%
Barwar Aram	18.8%
Zaxo Aram	5.6%

LOCATIVE	
Masulei	100%
Lačin	96.3%
Mazanderani	90.8%
Qohrudi	90.5%
Khoynarudi	87.8%
Zazaki/Dimli	87.1%
Mukri	85.7%
Gawrajui	83.6%
Rashti	81.8%
Vafsi	81.4%
Cauc. Tat	81.3%
Lerik	71.7%
Warmawa K.	67.7%
Zakho Kurd	64.6%

LOCATIVE	
Arhavi Laz	100%
Armenian	88.7%
Stepanakert	87.9%
Tabrizi	86.6%
Bayat Azeri	85.5%
Ardeşen	85.4%
Lorri	82.9%
Karin Armenian	81.3%
Sanandaj Aram	76.6%
Jewish Urmi Aram	73%
Vartashen Udi	72.7%
Georgian	57.2%
Barwar Aram.	22.6%
Zaxo Aram.	0%

Now for the four arguments that show tendencies towards right-branching:

Addressees, Benefactives, Recipients, Goals

ADDRESSEES (‘say **to**’)

First Iranian languages

ABLATIVE	
Masulei	100%
Lačin	98.8%
Qohrudi	95.7%
Vafsi	93.1%
Zazaki/Dimli	91.3%
Khoynarudi	89.5%
Rashti	88.9%
Mazanderani	85.9%
Warmawa K.	84.2%
Gawrajui	82.5%
Mukri	79.6%
Cauc. Tat	73.9%
Zakho Kurd	73.5%
Lerik	73.2%

ADDRESSEE	
Mazanderani	100%
Masulei	100%
Khoynarudi	100%
Mukri	100%
Zazaki/Dimli	100%
Qohrudi	94.7%
Rashti	94.7%
Lačin	93.1%
Vafsi	71.4%
Lerik	63.6%
Gawrajui	53.3%
Zakho Kurd	0%

Then comparing Iranian with non-Iranian languages:

ADDRESSEE	
Mazanderani	100%
Masulei	100%
Khoynarudi	100%
Mukri	100%
Zazaki/Dimli	100%
Qohrudi	94.7%
Rashti	94.7%
Lačin	93.1%
Vafsi	71.4%
Lerik	63.6%
Gawrajui	53.3%
Zakho Kurd	0%

ADDRESSEE	
Karin Arm.	100%
Armenian	94.1%
Stepanakert	93.8%
Lorri	92.9%
Tabrizi	90%
Arhavi Laz	81%
Bayat Azeri	78.6%
Jewish Urmi	40%
Sanandaj A.	4.8%
Zaxo Aramaic	0%

BENEFACTIVES (‘for’)

First Iranian languages

ABLATIVE	
Masulei	100%
Lačin	98.8%
Qohrudi	95.7%
Vafsi	93.1%
Zazaki/Dimli	91.3%
Khoynarudi	89.5%
Rashti	88.9%
Mazanderani	85.9%
Warmawa K.	84.2%
Gawrajui	82.5%
Mukri	79.6%
Cauc. Tat	73.9%
Zakho Kurd	73.5%
Lerik	73.2%

BENEFACTIVE	
Masulei	100%
Lačin	100%
Zazaki/Dimli	100%
Mukri	97.2%
Gawrajui	87.1%
Rashti	73.7%
Lerik	71.4%
Cauc. Tat	66.7%
Mazanderani	60.9%
Warmawa K.	60%
Vafsi	54.5%

Tendencies away from preverbal

Then comparing Iranian with non-Iranian languages:

BENEFACTIVE	
Masulei	100%
Lačin	100%
Zazaki/Dimli	100%
Mukri	97.2%
Gawrajui	87.1%
Rashti	73.7%
Lerik	71.4%
Cauc. Tat	66.7%
Vafsi	46.2%

Qohrudi, Khoynarudi, Zakho Kurdish

BENEFACTIVE	
Stepanakert	90.9%
Bayat Azeri	85.7%
Lorri	78.9%
Armenian	65.3%
Vartashen Udi	63.6%
Jewish Urmi	62.5%
Georgian	56%
Tabrizi	54.5%
Sanandaj Aram.	41.7%
Barwar Aramaic	11.1%

≤65

Arhavi Laz, Ardeşen, Karin Armenian, Zakho Kurd, Zakho Aram

RECIPIENTS (‘give **to**’)

First Iranian languages

Then comparing Iranian with non-Iranian languages:

ABLATIVE	
Masulei	100%
Lačin	98.8%
Qohrudi	95.7%
Vafsi	93.1%
Zazaki/Dimli	91.3%
Khoynarudi	89.5%
Rashti	88.9%
Mazanderani	85.9%
Warmawa K.	84.2%
Gawrajui	82.5%
Mukri	79.6%
Cauc. Tat	73.9%
Zakho Kurd	73.5%
Lerik	73.2%

Much more serious shift away from preverbal

RECIPIENT	
Masulei	100%
Mazanderani	81.3%
Khoynarudi	77.8%
Qohrudi	62.1%
Cauc. Tat	58.1%
Lerik	55.3%
Rashti	52%
Zazaki/Dimli	28.6%
Vafsi	23.8%
Gawrajui	14.5%
Lačin	13.6%
Zakho Kurd	9.1%
Mukri	5.6%

RECIPIENT	
Masulei	100%
Mazanderani	81.3%
Khoynarudi	77.8%
Qohrudi	62.1%
Cauc. Tat	58.1%
Lerik	55.3%
Rashti	52%
Zazaki/Dimli	28.6%
Vafsi	23.8%
Gawrajui	14.5%
Lačin	13.6%
Zakho Kurd	9.1%
Mukri	5.6%

RECIPIENT	
Arhavi Laz	92.3%
Karin Arm.	88.9%
Sanandaj A.	78.9%
Georgian	76.9%
Lorri	70.6%
Stepanakert	68.8%
Tabrizi	61.9%
Jewish Urmi	60.4%
Bayat Azeri	58.6%
Armenian	51.5%
Zaxo Aram	0%

Iranian languages take a greater leap toward postverbal position

Goals (destination)

ABLATIVE	
Masulei	100%
Lačin	98.8%
Qohrudi	95.7%
Vafsi	93.1%
Zazaki/Dimli	91.3%
Khoynarudi	89.5%
Rashti	88.9%
Mazanderani	85.9%
Warmawa K.	84.2%
Gawrajui	82.5%
Mukri	79.6%
Cauc. Tat	73.9%
Zakho Kurd	73.5%
Lerik	73.2%

All Iranian languages are above 73% in placing the **Ablative** before the verb

GOAL		
Qohrudi	41.1%	< 45%
Mukri	39.5%	
Mazanderani	24%	
Masulei	21.7%	
Lerik	21%	
Cauc. Tat	18.6%	
Zakho Kurd	14.3%	
Rashti	14%	
Lačin	13.5%	
Vafsi	12.1%	
Gawrajui	9.5%	
Zazaki/Dimli	7.5%	
Khoynarudi	4.9%	
Warmawa K.	1.6%	

All Iranian languages are under 45% in placing the **Goal** after the verb

GOAL	
Qohrudi	41.1%
Mukri	39.5%
Mazanderani	24%
Masulei	21.7%
Lerik	21%
Cauc. Tat	18.6%
Zakho Kurd	14.3%
Rashti	14%
Lačin	13.5%
Vafsi	12.1%
Gawrajui	9.5%
Zazaki/Dimli	7.5%
Khoynarudi	4.9%
Warmawa K.	1.6%

GOAL		
Arhavi Laz	98.3%	
Ardesen	80.5%	< 50%
Karin Arm.	48.8%	
Lorri	41.5%	
Vartashen Udi	33.3%	
Georgian	31.3%	
Armenian	31.1%	
Tabrizi	24.6%	
Bayat Azeri	23.8%	
Stepanakert	19.4%	≤ 15%
Jewish Urmi	15.2%	
Sanandaj A.	5.6%	
Barwar Aramaic	4.6%	
Zakho Aramaic	0%	

Frommer (1981) gives the following hierarchy for postverbal elements in spoken Persian:

Postposability hierarchy of Persian (Frommer 1981:180)

Goal > non-Goal PP > DO (+ *ra*) > ADV > SUBJ > DO (- *ra*)

Goal > Recipient > Benefactive > Addressee > DO (def) > DO (indef)

modified here for present purposes, factoring in areality of 28 languages:

The following progression of all eight peripheral arguments under 70% in the 28 languages shows the above hierarchy very nicely:

PERIPHERAL ARGUMENTS, < 70%

ABLATIVE		INSTRUMENTAL		COMITATIVE		LOCATIVE	
Georgian	55.6%	Georgian	57.9%	Lerik	66.7%	Warmawa	67.7%
Bar Aram	18.8%	Sanandaj	52.9%	Georgian	50%	Zaxo K.	64.6%
Zaxo Ar	5.6%	Barwar Ar	32%	Bar Ar	*<20%*	Georgian	57.2%
				Zaxo Ar	*<20%*	Bar Ar	22.6%
						Zaxo Ar	< 10%

ADDRESSEE	
J. Urmi	40%
Sanandaj	4.8%
Zaxo Ar	0%

Often lacking from corpora

BENEFACTIVE	
Armen	65.3%
Vart Udi	63.6%
J Urmi	62.5%
Georgian	56%
Tabrizi	54.5%
Sanandaj	41.7%
Bar Ar	11.1%

RECIPIENT	
Step Arm	68.8%
Qohrudi	62.1%
Tabrizi	61.9%
J Urmi	60.4%
Bayat Az	58.6%
Cauc.Tat	58.1%
Lerik	55.3%
Rashti	52%
Armen	51.5%
Zazaki	28.6%
Vafsi	23.8%
Gawraju	14.5%
Lačin	13.6%
Zaxo K	9.1%
Mukri	5.6%
Zaxo Ar	*<10%*

GOAL	
Karin Arm.	48.8%
Lorri	41.5%
Qohrudi	41.1%
Mukri	39.5%
Vartashen Udi	33.3%
Georgian	31.3%
Armenian	31.1%
Tabrizi	24.6%
Mazanderani	24%
Bayat Azeri	23.8%
Masulei	21.7%
Lerik	21%
Stepanakert	19.4%
Cauc. Tat	18.6%
Jewish Urmi	15.2%
Zakho Kurd	14.3%

GOAL – con't	
Rashti	14%
Lačin	13.5%
Vafsi	12.1%
Gawrajui	9.5%
Zazaki/Dimli	7.5%
Sanandaj A.	5.6%
Khoynarudi	4.9%
Barwar Aram	4.6%
Warmawa K.	1.6%
Zaxo Aram	0%

As we saw with Direct Objects, peripheral arguments also show two principal clines:

C. Iran □ W. Iraq (Aramaic, Arabic)
C. Iran □ Southern Caucasus

The east-west clines (Iran □ W. Iraq) are tentatively explained via areal phenomena:

> Haig (2014:7) states: 'A preliminary, and obviously speculative, attempt to fit these findings into a historical scenario, would be as follows: in its formative stages, Northern Kurdish would have been in close contact with Neo-Aramaic varieties... [leading] to an increase in post-predicate Goals in Kurmanji, yielding the pattern found still today in Badînî Kurmanji. And conversely, some small varieties of Neo-Aramaic ... shifted from VO to OV, presumably under Kurdish influence.'

Moving eastwards towards the Iranian plateau, Neo-Aramaic varieties encounter Iranian and Turkic languages, gradually changing the word order of the first group of our four peripheral arguments (Ablative, Locative, Comitative, Instrumental) to predominately (>50%) *preverbal* position. Christian Urmi (Assyrian) is an exception, possibly due to close contact and cultural identification with the Barwar Assyrian Christians in Iraq:

Jewish Urmi Aramaic		Sanandaj Aramaic		Assyrian 1 (Chr. Urmi Aramaic)		Assyrian 2 (Chr. Barwar Aramaic)	
Instrum	86.7%	Locat	76.6%	Ablat	40.2%	Instrum	32%
Comit	77.3	Ablat	78.8%	Locat	28.6%	Locat	22.6%
Ablat	74.6%	Instrum	52.9%	Instrum	25%	Ablat	18.8%
Locat	73%			Comit	17.2%	Comit	5.3%

Conversely, Iranian languages of the plateau and the Zagros were affected by contact with Aramaic (and formerly Arabic), most likely due to language shifts of the latter communities to Iranian languages (and the later shift of local Iranian populations to

Turkic, see Stilo 2014, 2016). Christian and Jewish Aramaic-speaking communities in pre-Islamic and pre-Mongol times were much more widespread in Iran than they were afterward (see Russell 1991 for general information). These contact situations may have facilitated our 2nd group of four peripheral arguments (Addressee, Benefactive, Recipient, Goal) in languages of the Zagros and the plateau to tend toward *postverbality*. Not all four of these arguments are predominately postverbal but they clearly show a decrease (< 70%) of preverbal position. Statistics vary according to the given argument and language.

	S. Talyshi	*Caspian*	*Azerbaijani*	
	Masulei	Mazanderani	Tabrizi	Bayat
Addressee	100%	100%	90%	78.6%
Benefactive	100%	60.9%	54.5$%	85.7%
Recipient	100%	81.3%	61.9%	58.6%
Goal	21.7%	24%	24.6%	23.8%

	N. Kurdish	*C. Kurdish*	*S. Tati*	
	Zakho Kurd	Mukri	Vafsi	Zazaki
Addressee	0%		71.4%	100%
Benefactive		97.2%	46.2%	100%
Recipient	9.1%	5.6%	23.8%	28.6%
Goal	14.3%	39.5%	12.1%	7.5%

The explanation for the Iran Caucasus cline, on the other hand, is not obvious at first glance. Progressing northwards, VO order and postposed peripheral argument increase, relatively speaking, in Georgian, Armenian, Udi, Caucasian Tat, and Lerik (N. Talyshi). The most plausible reason would have to do with diachronic factors *already present* in at least Georgian and Armenian, even though these features are more or less the opposite in these languages today. Old Georgian and Classical Armenian had rather flexible word order, with both core (VO/OV) and peripheral arguments investigated in this discussion:

> "According to Sarjveladze's quantitative study (1984:528, 535-536), Old Georgian in general, and Early Georgian in particular, ***favors*** head-modifier both within the clause and within the noun phrase (NP): direct and indirect object after the verb; adjective, article, and possessor after their head..." (Kevin Tuite: 2004:985; emphasis mine)

Thus Old Georgian had a *preference* for head-first (right-branching) structures, but this implies that other word order possibilities also existed.

As with Georgian, Classical Armenian was also rather flexible on word order issues, both with core and peripheral arguments. Grammars of Old Armenian (Minassian, 1976; Tumanyan, 1971) often state that modifiers may either precede or follow the head – even 'indifferently' (Minassian: p. 69). Clackson (2004: 937) is more specific in stating that "[Classical] Armenian has prepositions, rather than postpositions; in noun phrases the unmarked order is *adjective-head noun*, but *head noun – dependent genitive*. Armenian prose exhibits great variety in the position of the verb in the sentence..."

Having examined 6 brief texts of 5th c. Armenian in Tumanyan (1971), I found the following preliminary results for the NP, OV/VO and the few tokens of peripheral arguments:

Tokens:	Pre-	Postverbal

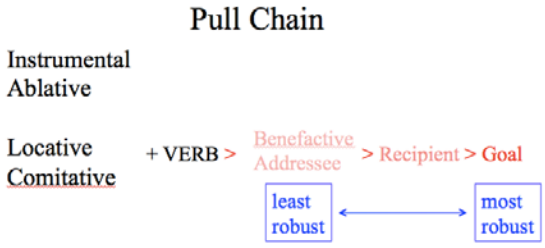
gen-N/N-gen	5	29
adj-N/N-adj	3	5
OV/VO-def	11	16 = 64% VO
OV/VO-indef	4	6 = 60% VO

Note that in 5th c. Armenian – a predominately SVO language with fairly free word order – the usual 4 arguments perhaps tend to be postverbal

Ablative	3	4
Comitative	-	-
Instrumental	4	4
Locative	3	3
Addressee	0	2
Benefactive	0	2
Recipient	0	4
Goal	1	6

Iranian languages, under the influence of surrounding non-Iranian languages, through contact phenomena and/or language shift begin to move some goal/target-like arguments to postverbal position. Perhaps there was already some tendency towards postverbal position in earlier stages of Iranian due to post-Islamic contact with Arabic and pre-Islamic contact with Aramaic, particularly in the (unknowable) spoken registers of Middle Iranian languages.

Pull Chain: The Goal argument was probably the first one to move to postverbal position and is now the most robustly postverbal argument. This significant movement perhaps then encouraged more movements to postverbal position via a *pull-chain* bringing other target-like arguments to follow the behavior of the goal (with diminishing robustness):



To sum up:

Instrumental
Ablative
Locative
Comitative

These four arguments have generally shifted to preverbal position in most Aramaic and languages of the south Caucasus

Addressee
Benefactive
Recipient
Goal

These four arguments have gained a tendency to postverbal position in languages of the Iranian plateau and the Zagros area, culminating the total shift of goals and often the Recipient

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