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## Keynote Address

### **The features of the Iranian copula: a synchronic view**

JILA GHOMESHI

In Standard Persian there are environments in which the strong/independent copula *hast* must be used with agreement suffixes instead of just the agreement suffixes alone. Recent proposals suggest that *hast* is required primarily for phonological reasons (Okubo & Nomoto 2023). However, *hast* is also required in so-called existential constructions. In this presentation I explore whether existential constructions also give rise to the phonological environment that triggers use of *hast* or whether these constructions require the independent copula for other reasons. Using Creissels' (2019) view that constructions that are commonly called 'existential' are actually inverse-locational predications, I argue that the copula in these constructions is featurally distinct from the copula in other types of predications. This view is supported by data from two other Iranian languages. I also suggest a way in which this feature-based view, which gives rise to different construction types, can be compatible with the phonological explanation that has been proposed.

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## From gender to specificity in Bartangi

ARTYOM BADEEV

Like other Pamir languages, Bartangi (Shughni-Roshani group) has retained the Iranian opposition between masculine and feminine gender, reflected mainly by agreement on demonstratives and verbs in the past and perfect. This system was previously analyzed as predominately semantically motivated, distinguishing male, female and many minor semantic classes such as bedding items, trees, bodies of water, footwear, etc. (Karamkhudoev 1973; Karamshoev 1986). Each of these classes is supposed to be associated with either masc. or fem. gender. At the same time, Bartangi has been noted for the gender flexibility of its nouns, starting at least from Sokolova (1966, pp. 371-372). Edelman (1980) explained this flexibility by the assignment of mass and abstract inanimate nouns to the masc., also singular and concrete inanimate nouns to the fem. However, how this flexibility interacts with the aforementioned lexical noun classes remains unclear.

The new data obtained as a result of Bartangi fieldwork makes it possible to propose the reanalysis of Bartangi gender assignment. I claim, that there are five semantic classes in Bartangi: male, female, higher animal, lower animal and inanimate. Male and inanimate nouns are assigned to the masc., while female and lower animal to the fem. Higher animals can be assigned to the common gender. Furthermore, nouns in Bartangi can agree in both masc. and fem. depending on the properties of the noun phrase. The few exceptions are nouns denoting male and female humans, as well as nouns denoting animals of specific sex (e.g., cow, bull), these strictly follow the biological sex. With lower animals and inanimates, gender flexibility is anchored to the distinction between specific and non-specific noun phrase, as shown in Table 1. In what follows, I will illustrate these assignment rules by examples. In this paper I adopt the labels from Haspelmath (1997). That is, a *specific phrase* is a phrase that has a referent in a speaker's reality space, and a *non-specific phrase* is a phrase which does not have a referent in the speaker's reality space (Haspelmath 1997, pp. 108-109).

Gender assignment	Semantic class				
	Male	Female	Higher animal (of unspecified sex)	Lower animal	Inanimate
Specific NP	masc.	fem.	masc./fem.	fem.	masc. / fem.
Non-Specific NP	masc.	fem.	masc./fem.	masc. / fem.	masc.
Lexical gender (proposed)	masc.	fem.	common	fem.	masc.

Table 1. The rules of gender assignment in Bartangi.

There is a tendency in Bartangi for nouns in specific phrases to agree in fem., while in non-specific phrases they agree in masc. In (1a) 'blanket' is found in a specific phrase, where it agrees with the demonstrative in fem. In contrast, in (1b) the same noun is found in a non-specific phrase, and 'blanket' agrees with the verb and demonstrative in masc.

- (1) a. *az=mim*                      *adyal*                      *zoz*                      *yim*                      *garm*  
 OBJ=D1.OBL.F                      blanket                      take.IMP                      D1.NOM                      warm  
 'Take this blanket, it is warm'.
- b. *ar*                      *ar*                      *pomirī*                      *čöd*                      *ik-das*                      *adyal*  
 LOC.DOWN                      each                      Pamir                      house                      EMPH-such                      blanket  
*vud*                      *di*                      *az=ī=an*                      *xubaθ*                      *čūj*  
 be.PST.M                      LNK                      OBJ=D3.OBL.M=3PL                      REFL                      make.PRF  
 'Every Pamir house had such a blanket that they made it on their own'.

For *inanimate* nouns (including flora), the agreement in fem. is prohibited in non-specific phrases (2), while in specific phrases both masc. and fem. marking occur.

- (2) *ič*                      *arar=ti*                      *ar*                      *boy*                      *parwarix*                      *na*                      *sawd,*  
 NEG                      poplar=HAB                      LOC.DOWN                      garden growing                      NEG                      become.PRS.3SG  
*agar*                      *iči*                      *az*                      *dī*                      *(\*dim)*                      *xac*                      *ca*                      *na*                      *det*  
 if                      INDEF OBJ                      D2.OBL.M                      D2.OBL.F                      water                      SUBD                      NEG                      give.PRS.3SG  
 'No poplar would grow in a garden, if someone does not water it.'

Regarding animals whose sex is not specified, there are two distinct categories. First, for *lower animals* (e.g., insects, fishes, reptiles), masc. is prohibited in specific phrases when denoting singular entities (4a), while in non-specific phrases both masc. and fem. marking occur (4b). Second, for *higher animals* (birds and mammals of unspecified sex, including humans), I found no constraints on agreement in both specific and non-specific phrases. Regarding this nouns, agreement in masc. or fem. can be used to specify sex (5).

- (4) a. *pa*                    *dim*                    (*\*dī*)                    *yi*    *murcak*            *jon*  
 LOC.UP                    D2.OBL.F                D2.OBL.M                one    ant                    life  
*ma-ḍa*    *yid=ti*    *žirāwd*  
 PROH-beat.IMP    D2.NOM=HAB    bite.PRS.3SG  
 ‘Do not touch this ant, it bites’.
- b. *ar*                    *māš*    *jingāl*    *tafāwsk*                    *aveg-ow*                    *bīft*  
 LOC.DOWN                we            forest    snake                    find-INF                    possible  
*ma-zāk*    *wi=tör*    (*um=tör*)  
 PROH-step on.IMP    D3.OBL.M=SUPD3.OBL.F=SUP  
 ‘A snake can be encountered in our forest. Do not step on it’.
- (5) *yim*                    *mun-ā*                    *yiw*    *paranda,*                    *āz=ti*                    *az*                    *dī*  
 D1.NOM                    I.OBL-POSS                one    bird                    I.NOM=HAB                OBJ                    D2.OBL.M  
*sīr*    *kin-um*  
 fed    make.PRS=1SG  
 ‘This is my (male) bird, I feed it’.

Nouns denoting people and higher animals of specific sex cannot change their gender depending on phrase (non-)specificity (6).

- (6) a. *kaxwoy-ā*                    *čor*                    *ca*    *na-vawd*                    *um*  
 girl-POSS                    husband                    SUBD    NEG-be.PRS.3SG                    D3.OBL.F  
(*\*wī*)                    *pīd*    *čöd*    *um-ā*    (*\*wī-yā*)  
D3.OBL.M                    father    house    D3.OBL.F-POSS    D3.OBL.M-POSS  
‘If (any) girl does not have a husband, she lives at her father’s house’.
- b. *yid*                    *mun*    *sar*    *bašānd*                    *šöj,*    *āz=ti*                    *az*  
D2.NOM                    I.OBL    very    good                    bull    I.NOM=HAB                OBJ  
*dī*                    (*\*dim*)                    *bašānd*                    *sir*    *kin=um*  
D2.OBL.M                    D2.OBL.M                    good                    fed    make.PRS=1SG  
‘This is my best bull, I feed him well’.

To summarize, gender assignment patterns in Bartangi follow the extended animacy hierarchy (Croft 2003, pp. 128-132). Gender assignment in the upper part of the hierarchy is lexical in that it follows the inherent semantics (sex) of the noun, while (non-)specificity starts to play a larger role the lower the nouns stands in the hierarchy. Male and female nouns have the most stable gender assignment, not influenced by specific/non-specific status of the noun phrase. Nouns denoting higher animals of unspecified sex could be referred to as common gender nouns. In this class, the choice of gender depends on the sex of the intended referent. For nouns lower in the hierarchy, gender agreement markers start to express specificity rather than gender. The lower animal and inanimate have few, if any, lexical constraints on their gender agreement. Their pattern is determined by specificity rather than any lexical or semantic feature; therefore, they can be treated as unmarked for gender.

Therefore, Bartangi presents an interesting and, to the best of my knowledge, typologically unique development where markers originally denoting agreement with lexical gender partially switched to the purely context-based marking of (non-)specificity, while at the same time retaining the status of gender agreement for certain semantic classes of nouns.

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**Introducing the Handbook of Ossetic Preverbs:  
An overview of the contextual change of dynamic verbs induced by preverbs**

SAMOPRIYA BASU & EMINE ŞAHINGÖZ

Ossetic is the among the few modern Iranian language that reflexes the old Indo-European locational adverbs (Reinöhl 2016) entirely as synchronically functional preverbs. In this, it differs from most of its sister languages where the adverbs have largely grammaticalized as prepositions. Ossetic preverbs fall within the domain of word-formation (Erschler 2016), and modify the base verb grammatically and semantically. Modern Ossetic shows eight functional preverbs in Iron Ossetic and seven in Digor Ossetic. Depending on the verb type (static vs. dynamic) and tense they may modify the Aktionsart, perfectivity or directionality of the verb (cf. Şahingöz 2020; Arkadiev 2014; Tomelleri 2009).

Preverbs in Ossetic have been acknowledged since the first grammatical descriptions of the language (Sjögren 1844; Miller 1903). Later scholars have explored their functions (Abaev 1949; Akhvlediani 1963; Bielmeier 1981; Young 2017), etymology (Thordarson 1982), and position in an areal-typological context (Schmidt 1969; Tomelleri 2009; Arkadiev 2014).

Through the present study, we aim to add to this scholarship. Depending on the verbal category, preverbs in Ossetic exhibit different functions; simply put, they mark aspectuality and Aktionsart in static verbs and spatial deixis in dynamic verbs. We provide a comprehensive corpus-based examination of the contextual change of dynamic verbs that is induced by preverbs.

As can be seen in the following examples, the Digor verb *cæwun* ‘to go’ appears with different meanings depending on the preverb that precedes it:

(1) Digor

<i>Ær-co</i>	<i>'ma din</i>	<i>æj</i>	<i>fæ-wwin-un</i>	<i>kæn-dzæncæn</i>
<b>PV-come=IMP.1SG</b>	and <b>CLIT.2SG.DAT</b>	<b>CLIT.3SG.GEN</b>	<b>PV-see-INF</b>	<b>do-1SG.FUT</b>

“Come here and I will show it to you.”

(2) Digor

<i>Mægur</i>	<i>læg</i>	<i>ba-cud-æj</i>	<i>medavar-mæ</i>	<i>'ma ibæł</i>
poor	man	<b>PV-go.PST-3SG.PST</b>	room_inside-ALL	and <b>CLIT.3SG.ADESS</b>
<i>'j</i>	<i>i</i>	<i>xwarz</i>	<i>læg</i>	[...]
<b>COP.3SG.PRS</b>	<b>PTCL</b>	good	man	

(3) Digor

<i>Fælværa-j</i>	<i>furt</i>	<i>sawdonæ-mæ</i>	<i>ni-ccud-æj,</i>	[...]
<b>PN-GEN</b>	son	river_head	<b>PV-go.PST-3SG.PST</b>	
<i>fæstæmæ</i>	<i>is-æzdaxt-æj</i>	<i>æma</i>	<i>æxsir</i>	<i>fæ-lsodz-uj</i>
back	<b>PV-return.PST-3SG.PST</b>	and	milk	<b>PV-filter-3SG.PRS</b>

This work provides a comprehensive overview of the deictic functions of preverbs within the Ossetic language. By conducting a detailed corpus analysis, this study examines the contextual usage of preverbs in conjunction with verbs of movement. The primary objective is to elucidate the whole range of spatio-directional functions these preverbs can encompass. Through systematic analysis, the research highlights how preverbs contribute to expressing spatial relations and directions, offering valuable insights into their linguistic roles and applications. Our research provides a detailed overview of the use of preverbs in Digor. However, we also address how Digor and Iron differ in the usage of preverbs, and make

diachronic and areal observations where applicable. This work fills a significant gap in the understanding of Ossetic preverbs, thereby contributing to the broader field of Iranian linguistics and enhancing our comprehension of spatial language phenomena.

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**What does a semantically-organized dictionary have to say?  
Insights from the ‘Ecosystem and Landscape’ domain in the Etymological-Comparative  
Dictionary of Balochi**

SARA BELELLI

This contribution presents the latest advancements in the compilation of the *Etymological-Comparative Dictionary of Balochi*, a lexicographic project carried out collaboratively for several years under the coordination of Adriano V. Rossi (see Rossi, 2017 for an overview). The dictionary has recently reached new milestones regarding the content and structure of entries, bringing it closer to prospective completion (see Buchi, 2016: 348-349 on the issue of “bringing etymological dictionaries to an end”). Drawing on examples from the ‘Ecosystem and Landscape’ domain – the first of seven sections drafted in an advanced shape so far (others are Anatomy, Material culture, Kinship, Family and Household, Fauna, Flora, Time and Place) – we will discuss technical challenges encountered in the compilation of entries and illustrate how the information contained in the dictionary could be navigated.

A semantically-arranged etymological-comparative dictionary seeks to cluster entries by meaning, besides listing them alphabetically as is most common in etymological lexicography. While alphabetical ordering will still play a role in the final lexicographic product, as discussed from the earliest stages of the project at the Balochi Academy in Quetta in the 1980s, recent activities have focused on grouping words into sections based on coherent semantic domains. This choice wished to overcome some constraints that typically correlate with purely alphabetical ordering, including the difficulty of retrieving synonymic variants and semantically related words scattered across the dictionary according to their graphic form. This dispersion often hinders the identification of parallelisms in the conceptual pathways that underlie sub-lexica within a semantic field, which frequently follow similar trajectories or arise from comparable cognitive processes, potentially providing valuable etymological cues. As an example, Balochi words for ‘ashes’ and ‘dust’ can be seen as relating to similar notions of:

- **‘drying up (due to heat)’**: Bal. (*h*)*ēs* ‘ashes’ and possibly *hāk* ‘earth, soil, sand, dust’
- **‘sprinkling/spraying’ and ‘scattering’**: Bal. *danz* ‘dust’ and possibly *purr* ‘ashes’ (if not from a colour term), a development shared also by items for ‘spark’, e.g. Eastern Bal. *čiring* and Prs. *parkāle*
- 

These relationships add up to (or stem from) more straightforward connections, such as:

- that of ‘ashes’ with the notion of **‘burning, crackling (of fire)’**, restricted to items for ‘burning/hot ashes, embers’ in Bal., such as *āč* and *jal*
- that of ‘ashes’ with (dark) **colour**, as for Marw Bal. *wār* and cognates
- that of ‘dust, sand’ with the idea of **‘small (flying) particles’**, as for Bal. *task* and *dūlaxt*

Ultimately, «[a]lphabetical order tells a reader nothing about the word itself other than its opening configuration of letters, and leads to the alphabetical fragmentation of facts, detaching a dictionary so arranged from any possibility of linking order to meaning» (Key and Alexander, 2016: 368). This fragmentation becomes particularly problematic when trying to unravel semantic and etymological interconnections within synonymic sets. Indeed, even landscape terminology, if considered as “basic” for Ir. languages (see e.g. Sadovski, 2017: 570-571), may show unexpected degrees of internal complexity in this respect.

The adoption of a perspective bridging semasiological and onomasiological approaches has proven effective in bringing to light a rich tapestry of information, not only about the arrangement of Balochi lexicon, but also on questions relevant to Iranian (and more broadly Indo-European) etymology. Structuring a dictionary – or rather a thesaurus – according to semantic fields (as Mallory & Adams, 2006 have done for their PIE reconstructed vocabulary) allows the compiler to look into the layering of lexical repertoires in different varieties of the

language, favouring the inclusion of loanwords (both structured/*Lehnwörter* and foreign/*Fremdwörter*) commonly left out from traditional etymological accounts, tending to focus on a basic core of presumed inherited vocabulary.

In some lucky cases, this has led to revisions and clarifications of former etymological proposals. See, for instance, Bal. *badūk* ‘beach (when impassable at high tide)’, considered of possible Ir. origin. Based on Sindhi and Brahui items for ‘sand hill, hillock’ – entered in Bal. as *biṭ(t)* with the meaning ‘shoreline’, i.e. most elevated place of the coastline reached by the flood tide – the term could be identified as a possible *Lehnwort* of either Indo-Aryan (IA) or Dravidian origin in a relatively old stratum of Proto-Balochi:

***badūk*** impassable beach (at high tide)

Term of uncertain etym. According to IIFL, Bal. could be < \**a-bda-*, cf. YAv. *abda-*, interpreted as ‘not to be trodden’, contrasting with Yidgha *ōvd*, *ōwd* ford and Wakhi *vādek* path, both poss. < \**ā-bda-(ka-)* ‘place where one can place the foot’ (although IIFL considers Wakhi more prob. < \**abi-taka-*). ESVJ 378 (not quoting Bal.) relates Wakhi *vādek* to the set for ‘path’, cf. OPrs. *paθī̃-* (hapax, see WaK 233), Av. *panti-*, *paθ-*; Skt (Ved.) *pánthā-*, of Iir. and IE origin. However, see Bal. *biṭ(t)* shoreline for a different etymological proposal.

- Cf. (?)YAv. *abda-* ‘not to be trodden’(?), (?)OPrs. *paθī̃-* path, cf. YAv. *panti-*, Av. *paθ-* id. | Cf. (?)Ydgh. *ōvd*, *ōwd* ford; (?)Wakhi *vādek* path || Cf. (?)Skt (Ved.) *pánthā-* path.
- IIFL ii 193-194, 547 || Turner 1948.641; CDIAL 7785 [and Add.]; EWA ii 81-82.

***biṭ(t)*** shoreline

Term of uncertain etym. Acc. to Jahandide, the Bal. word indicates the most elevated place of the coastline reached by the flood tide, usually consisting of (sand)hills created by the back-and-forth movement of seawater. Probably to be compared with IA and Drav. terms for ‘mound, hill’, and further related to Bal. *badūk* impassable part of a beach at high tide. Note that suffixed forms exist in both IA (Ku. *bhituko* ridge, terrace, hillock) and Drav. (Br. *bātagh* summit, top). Bal. qualifies as a LW ← Br. or an IA lg.

- Variants: *but(t)* small hillock; (?)*bēt* elevated field at the side of a river that is reached by floods and silt, usually suitable for cultivation (= Bal. *biṭ*, acc. to Jahandide), EBal. edge, sharpness (Mitha-Surat; SHG).
- Cf. Si. *bhiṭa* sand hill; Ur. *bhīt(i)* (breadth of a) wall, embankment || Cf. Br. *biṭ*, *but* mound, hillock.
- CDIAL 9491 [and Add.] || DED<sup>2</sup> 5474.

**Basic references:**

Buchi, É. 2016. “Etymological dictionaries”, in Ph. Durkin (ed.), *The Oxford Handbook of Lexicography*, Oxford, pp.338–349; Kay, Ch. & Alexander M. 2016. “Diachronic and Synchronic Thesauruses”, *ibid.*, pp.367–380; Mallory J. P. & Adams D. Q. 2006. *The Oxford Introduction to Proto-Indo-European and the Proto-Indo-European World*, Oxford; Rossi, A. 2017. “The Etymological-Comparative Dictionary of the Balochi Language: Progress Report of an International Project”, *Balochistan Review* 36, pp.45–74; Sadovski, V. “The lexicon of Iranian”, in: J. Klein et al. (eds) *Handbook of Comparative and Historical Indo-European Linguistics*, Vol. 1, Berlin/Boston, pp.566-599. CDIAL: *A Comparative Dictionary of Indo-Aryan Languages*; DED<sup>2</sup>: *A Dravidian Etymological Dictionary*, 2<sup>nd</sup> ed.; EVSJ: *Ētimologičeskij slovar' vakhanskogo jazyka*; EWA: *Etymologisches Wörterbuch des Altindoarischen*; IIFL: *Indo-Iranian Frontier Languages*; WaK: *Wörterbuch der altpersischen Königsinschriften*.

## Linear positions of subordinators in Bartangi against the background of Eastern and Western Iranian

OLEG BELYAEV

Bartangi, like other Pamir languages of the Shughni-Roshani group, has an extremely poor inventory of subordinators: it is traditionally analyzed as consisting of only two elements, *ca* and *di*, each of which is described in existing publications (Sokolova 1960; Karamxudoev 1973) as having a very wide range of meanings. In this paper, I focus on describing the positional properties of these markers and their position in the clause structure of Bartangi, based on field data collected in 2023–2024 as well as on published texts. These properties have not yet been described in any detail; the description for the closely related Shughni (Parker 2023) is incomplete and differs in some important points from my Bartangi data.

In Bartangi, *ca* and *di* have the following core distributional properties: *ca* is strictly preverbal, only being able to be separated from the verb by negation (1); *di*, in fact, has two distinct varieties. One, which I call clause-internal (*di*<sub>IN</sub>), alternatively occupies the clause-second or preverbal position (2). Another variant of *di*, which I call *di*<sub>EX</sub>, occurs immediately after the main clause, encliticising to its final word, while the subordinate clause follows (3).

- (1) <\*ca> pulod <\*ca> tā =xīz <ca> na <\*ca>  
P. thou.OBL=APUD SUBD NEG  
yoδd az=ī qīw  
come.PRS:3SG OBJ=D3.M.OBL call.PRS[2SG]  
‘If Pulod does not come to you, call him.’
- (2) tū=t <di> māš=ri <\*di> bazaygarak <di> dāčūg, māš=ti xoš sān  
thou=2SG SUBD we=DAT toy give.PST we=FUT happy go.PRS:1PL  
‘When you give us toys, we are happy.’
- (3) āz fikri kin-um=di pulod yoδd  
I.NOM thought do.PRS-1SG=LNK P. come.PRS:3SG  
‘I think that Pulod will come.’

Bartangi also has two so-called coordinating conjunctions, *xu* and *at*, which encliticize to the preceding clause and are distributed roughly as follows: *xu* marks a temporal sequence of events, while *at* marks adversativity and contrast. This classification, however, seems to be based more on the Russian translation equivalents of these conjunctions than on anything else; *xu* and *at* behave more like clause-final subordinators, as seen in (4)–(5). In fact the very distinction between clausal coordination and subordination appears to be largely irrelevant for Bartangi, which is a topic for a separate discussion.

- (4) zaxmī sad yā čabūd, žer=um az= um δod=xu  
wounded become.PST.F D3.NOM dove stone=1SG OBJ D3.F.OBL hit.PST=and  
‘I hit the dove with a stone, and it became wounded’ (example from Karamxudoev 1973, with slight modification by today’s native speakers of Basid)
- (5) pulod ca.waxt kor kiχt? — asad aχefst=at  
P. when work do.PRS:3SG A. sleep.PRS:3SG=and  
‘When does Pulod work? — When Asad sleeps.’

Hence, if the final “conjunctions” are added to the list, there are four positional types of subordinators in Bartangi: 1) the clause-initial subordinator *di*<sub>EX</sub>, prosodically an enclitic to the preceding clause; 2) final conjunctions (*xu* and *at*); 3) the preverbal subordinator *ca*; 4) the “floating” subordinator *di*<sub>IN</sub>, which can appear in the second and preverbal positions.

All of these positional classes have remarkable correspondences in other Iranian languages. Perhaps the majority of the similarities are with Ossetic, whose preverbal

subordinators are similar in their position to the preverbal *ca* (a fact that has been noted, for Pamir languages in general, in Erschler 2010). The clause-final, ostensibly coordinating, conjunctions *xu* and *at* are also remarkably similar to Ossetic *æmæ* ‘and’ and *fælə* ‘but’, which may also appear sentence-finally despite their coordinating status (6). The alternate positioning of *di*<sub>IN</sub> between second and preverbal slots resembles Ossetic “floating” subordinators, which also show a strong preference for these two positions (Belyaev 2014).

- (6) *ærcæžə dəbe-mæ zərd-tam telefon-æj, [rəncən =dam u æmæ]*  
 recently D.-ALL speak-PST.1PL telephone-ABL sick =CIT be.PRS.3SG and  
 ‘We recently spoke to Dabe by phone, since he is said to be ill’ (Ossetic National Corpus, Belyaev 2022).

The second resemblance is between both types of *di* on the one hand, and Persian *ki* and its counterparts across the Iranian world. When *ki* introduces a postposed (relative, complement, purpose, etc.) clause, it behaves like *di*<sub>EX</sub>, standing between the two clauses and encliticising to the last word of the main clause (Rubinčik 2001: 331). When *ki* introduces a preposed adverbial clause, it is clause-internal, with a strong preference for second position (7), although the preverbal position does not seem to be excluded either, at least in Tajik (8).

- (7) *moh-i may ki ba Dušanbe omad-am, havo garm bud*  
 month-EZF May COMP to D. come.PST-1SG air warm be.PST[3SG]  
 ‘In May when I came to Dushanbe, the weather was warm’ (Perry 2005: 362).
- (8) *usto gūš-aš=ro ki tobid, firebgari=ro bas me-kun-ad*  
 craftsman ear-3SG=ACC COMP twist.PST.3SG trick=ACC stop IPFV-do.PRS-3SG  
 ‘Once the watchmaker twists its ear, it will stop its tricks’ (Perry 2005: 363).

Thus the distribution of *di* in Bartangi may be the result of pattern borrowing from Persian / Tajik. Also note the use of (relative) past tense in both (7) and the corresponding Bartangi example (3). This has been noted for Shughni *di*-clauses in Parker (2023), and for Tajik, Perry (2005: 363) compares this usage to the past tense in conditionals. However, this parallel between Tajik and languages of the Shughni-Roshani group has never been observed in the literature. It is also worth noting that in Wakhi, which, like other Pamir languages, also has a system of two main subordinators, the functional and positional counterpart to *ca* is *cə*, while the counterpart to *di* is the Persian loanword *ki* (Grjunberg & Steblin-Kamenskij 1976: 649–650; 653–654).

These two points of comparison suggest that Bartangi combines original East Iranian properties of subordination with properties that arose due to later Persian influence. In the talk, I will discuss in more detail the position of these conjunctions in the clause structure of Bartangi, their syntactic and prosodic properties, and possible diachronic, areal and structural explanations that can explain the high degree of diversity in the positions of Bartangi subordinators.

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## Avestan ditransitive constructions

MARIA CARMELA BENVENUTO & HARALD BICHLMEIER

This paper aims to contribute to the understanding of ditransitive syntax in Indo-Iranian languages by examining the distribution and patterns of ditransitive verbs in Avestan texts. While ditransitive constructions have been analysed in traditional grammars (Reichelt 1974 [1909], West 2011) as individual case constructions, this paper argues that a unitary approach to this phenomenon is necessary to fully understand its syntactic and semantic properties in Avestan.

In cross-linguistic perspective, ditransitive constructions display three basic alignment types, depending on whether the two non-agentive arguments, **Theme** and **Recipient**, are expressed/coded as the Patient-like (**P**) participant of monotransitive verbs or not (cf. Malchukov, Haspelmath, and Comrie 2010; Haspelmath 2015; Malchukov 2014).

### Ditransitive alignment types.

Indirective	Secundative	Neutral	Tripartite
T=P≠R	T≠P=R	T=P=R	T≠P≠R

By examining the distribution and patterns of ditransitive verbs in Avestan texts, this study aims to identify the different types of ditransitive constructions present in the language. In particular, Avestan distinguishes two types of ditransitive constructions: the dative ditransitive construction (see example 1) and two double accusative ditransitive constructions (see example 2):

#### (1) Dative Ditransitive Construction

(a) *aēbiiō* **R**    *mazdā*    *akā* **T**    *mraoṭ* (Y 32,12)  
 3PL.DAT    Mazdān:NOM    bad:ACC.PL    say:PRS.INJ.3SG.  
 ‘to them Mazdā said bad things’

(b) *dōišī. =mōi.* **R**    *yā=vā.*    *abifrā* **T** (Y 33,13)  
 show:AOR.IMP.2.SG=1sg.datREL.NOM=2PL.DAT    incomparable.ACC.PL  
*tā.*    *xšaθrahiīā.*    *Ahurā*  
 DEM.ACC.PL    reign:GEN.SG    *Ahura*:VOC  
 ‘show me the incomparable (virtues ?) that are yours, those of (your) reign, Ahura’

#### (2) Double Accusative Ditransitive Construction

(a) *tā.* **T=θβā.** **R**    *pərəsā.* (Y 31,14) // *taṭ.* **T θβā.** **R** *pərəsā.* (Y 44,8)  
 DEM.ACC.PL=2SG.ACC    ask:PRS.1SG    //DEM.ACC.SG=2SG.ACC ask:PRS.1SG  
 ‘these things I ask thee’    // ‘this I ask thee’

(b) *apō. =mā.* **R**    *ištīm.* **T**    *apaiiantā* (Y 32,9)  
 PRV=1sg.ACC    capability:ACC    take away:PRS.MED.3SG  
 ‘he takes the capability away from me’

A constructional analysis of Avestan data shows an alignment split (“different constructions under different conditions”, cf. Haspelmath 2015): the two ditransitive constructions of Avestan can be regarded as two independent argument structure constructions characterized by distinct pragmatic profiles associated with somewhat different meanings. The ditransitive construction with dative as Recipient represents the basic indirective alignment type of ditransitive constructions expressing transfer, while the double accusative construction features neutral alignment with a basic sense of reversed transfer. Indeed, the double

accusative construction (typical of ‘obtaining’-verbs) involves the proposition of Recipient not possessing Theme after the verb event and indicates a higher degree of affectedness marked by the accusative case. While transfer is still implied, the direction is different: from Recipient to Agent and not from Agent to Recipient as in a prototypical event of transfer. In this respect, the Recipient appears to be a sort of Maleficiary that on a scale of affectedness ranks higher than typical Recipients or Beneficiaries.

The present paper is diachronic-comparative in scope, and seeks to establish a fundamental range of argument realization constructions that can be observed in Avestan. In order to make the corpus more useful for our research, we have selected texts belonging to different stages of the Avestan language (Old Avestan, so called ‘Pseudo-Old-Avestan’/‘Middle Avestan’, Young Avestan, taking into account more recent editions (where available).

The findings of this research will be compared with existing studies on ditransitive constructions in Vedic (Dahl 2020). This comparative approach will shed light on the evolution of ditransitive syntax within the Indo-Iranian language family and its broader typological significance.

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## Split intransitivity in Shughni and Bartangi: A study in lexical microvariation

DARIA CHISTIAKOVA

This paper investigates split intransitivity (SI) in two closely related and mutually intelligible languages, Shughni and Bartangi (Iranian, Indo-European). After describing morphosyntactic manifestations of SI in these languages, the study addresses the lexical distribution of intransitive verbs into two classes: unergative and unaccusative, which I will refer to as  $S_A$ - and  $S_P$ -verbs respectively. Previous research has provided verb classifications for a limited number of languages, often singling out just one verb class (Merlan 1985; Levin & Rappaport 1995; Vydrin 2022). This paper, by contrast, will systematically classify morphologically simple intransitive verbs into  $S_A$ - and  $S_P$ -verbs in two related languages with a special focus on cognate verbs. Crucially, it seeks to explain its findings from a diachronic perspective, invoking the gradual loss of split ergativity in these languages (Payne 1980). The data for this study were collected in the field through elicitation (2022-2024).

The basis for positing SI in Shughni is the distribution of the second-position 3<sup>rd</sup> singular subject enclitic =*i* in past tenses, noted in Edelman (1990): it is used with transitive (1) and some intransitive verbs, which will be labelled  $S_A$ -verbs in this study (2), while it is not used with most intransitive verbs, which will, in turn, be labelled  $S_P$ -verbs (3).

- |   |            |                 |                |
|---|------------|-----------------|----------------|
| (1) <i>yu=yi</i>                                | <i>mu</i>  | <i>wīn-č</i>    | <i>Shughni</i> |
| D3.M.SG=3SG                                     | 1SG.O      | see-PF          |                |
| ‘He saw me’ (transitive)                        |            |                 |                |
| (2) <i>yu=yi</i>                                | <i>lap</i> | <i>paloys-t</i> | <i>Shughni</i> |
| D3.M.SG=3SG                                     | much       | work-PST        |                |
| ‘He ( $S_A$ ) worked a lot’ ( $S_A$ -verb)      |            |                 |                |
| (3) <i>yā(*=yi)</i>                             | <i>pi</i>  | <i>dišīd</i>    | <i>Shughni</i> |
| D3.F.SG   | UP         | roof            | climb.F-PST    |
| ‘She ( $S_P$ ) climbed the roof’ ( $S_P$ -verb) |            |                 |                |

SI in Bartangi has also been previously observed (Karamkhudoev 1973, Edelman 1990), although again not under that label. According to these earlier descriptions, in the past tenses, subjects expressed by personal pronouns or demonstratives are marked for oblique case with transitive (4) and some intransitive verbs, classified as  $S_A$ -verbs here (5), and marked for direct case with most intransitive verbs, classified as  $S_P$ -verbs in this study (6). Another manifestation of SI in Bartangi relates to the use of second-position subject enclitics in the past tenses, whose usage nevertheless differs from that in Shughni. Specifically, Bartangi has two distinct 3<sup>rd</sup> person plural subject enclitics which show an overlapping distribution: whereas =*af* is used with transitive (4) and  $S_A$ -verbs (5) (but not with  $S_P$ -verbs), =*an* is used with transitive and intransitive verbs (both  $S_A$ - and  $S_P$ -verbs) alike (Karamkhudoev 1973: 151-153).

- |  |                   |            |                                  |
|--|-------------------|------------|----------------------------------|
| (4) <i>uf=af</i>   | <i>palow</i>      | <i>xūg</i> | <i>Basid dialect of Bartangi</i> |
| D3.PL.OBL=3PL.TR   | <i>pilaf</i>      | eat.PST    |                                  |
| ‘They ate the pilaf’ (transitive)  |                   |            |                                  |
| (5) <i>uf=af</i>   | <i>kata</i>       | <i>ruz</i> | <i>Basid dialect of Bartangi</i> |
| D3.PL.OBL=3PL.TR   | whole             | day        | blow_nose-PST                    |
| (The children got sick). ‘They ( $S_A$ ) were blowing their noses all day’ ( $S_A$ -verb). |                   |            |                                  |
| (6) <i>wad=an</i>  | (* <i>uf=af</i> ) | <i>ar</i>  | <i>Basid dialect of Bartangi</i> |
| D3.PL.DIR=3PL.ITR  |                   | DOWN       | room                             |
| ‘They ( $S_P$ ) entered the room’ ( $S_P$ -verb)   |                   |            |                                  |

However, the two morphosyntactic manifestations of SI in the Basid dialect of Bartangi, as well as the entire tense-based split alignment system, are becoming obsolete (Payne 1980).

To explore the lexical distribution of S<sub>A</sub>- and S<sub>P</sub>-verbs in Shughni and Bartangi, I made two questionnaires based on entries from existing dictionaries (Karamshoev 1988-1999, Zarubin 1937, Sokolova 1960) and taking into account the morphosyntactic manifestations of SI in the respective languages. The resulting inventories share a significant number of cognates, which, however, do not always end up in the same verb class. For instance, in Shughni, certain verbs that take inanimate subjects, such as *leak*, *blossom* and *glimmer*, fall into the class of S<sub>A</sub>-verbs, whereas in Bartangi the cognates of these verbs behave as S<sub>P</sub>-verbs.

To explain the observed differences in the distribution of cognates, this study incorporates a diachronic perspective. The decay of split ergativity in Bartangi, both in case-marking and verbal agreement through subject clitics, is going hand in hand with the attrition of surface-level SI in the modern language. However, working with elderly speakers, we were able to document a system that shows the distribution of S<sub>A</sub>- and S<sub>P</sub>-verbs before the complete loss of SI. Shughni, in turn, seems to have lost tense-based split ergativity in case-marking significantly earlier (Harris & Campbell 1995: 263). Residual traces of the alignment system remain observable in the distribution of the 3sg clitic =*i*, which is characterized as vestigial ergativity by Parker (2020) and taken as the only overt manifestation of SI in this study. However, my data suggest that the ‘ergative’ or ‘transitive’ function of this marker is weakening in the modern language, as it is also used on inanimate subjects. Hence, the conclusion imposes itself that the clitic =*i* is currently undergoing reanalysis – a phenomenon described for the related language Yazghulami (Iranian, Indo-European) by Wendtland (2009).

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**From Khotanese to Sanskrit and back:  
Towards a reedition and linguistic analysis of the *Jīvakapustaka***

ALESSANDRO DEL TOMBA & SILVIA LUZZIETTI

The so-called *Jīvakapustaka* (JP), ‘The Book of Jīvaka’, is a collection of 93 Āyurvedic prescriptions preserved in the incomplete tenth-century Dunhuang manuscript Ch. ii.003 of the British Library (shelf marks IOL Khot 87–110). This manuscript features sections in corrupt Sanskrit verse alongside their Late Khotanese prose renditions (Bailey KT 1.136–195) and is written in a distinctive form of the Khotanese Documentary Brāhmī Script.

Interpreting this manuscript presents multiple challenges, primarily due to the peculiar script type, the complexities in deciphering the Sanskrit text, and the bewildering spelling variants used for writing Late Khotanese. These issues necessitate a simultaneous consideration of both the Sanskrit and Khotanese versions, an approach that has seldom been attempted. Scholars have generally focused on either the Khotanese version (Konow 1941, Tāme 2014) or the Sanskrit one (Chen Ming 2005). This highlights the difficulty of integrating both versions, yet such integration is essential for the correct interpretation of the text.

A notable exception is the pioneering work by A. F. Rudolf Hoernle, the decipherer of Khotanese, who prepared a study of ff. 44–72r (corresponding to the first 24 paragraphs) of both the Khotanese and Sanskrit texts, although his work remained unpublished due to his death in 1918. Hoernle’s approach has influenced subsequent studies of specific prescriptions by scholars such as Emmerick (1979, 1992, 1994, 1997), Maggi (2022, forthcoming), Del Tomba (forthcoming), and Luzziatti (forthcoming).

As part of a long-term project aimed at producing a comprehensive critical edition and translation of both the Sanskrit and Khotanese versions, this paper focuses on two closely connected key areas.

First, it aims to offer a methodology for reconstructing the extremely corrupt Sanskrit version, which abounds in scribal errors. Chen’s 2005 tentative reconstruction, based entirely on Bailey’s diplomatic edition, is flawed, as it disregards the Sanskrit metre, contains several mistakes in manuscript reading and textual reconstruction, and ignores the Khotanese rendition. Therefore, a new methodology must integrate a careful observance of the metrical structure underlying the Sanskrit text, due consideration of the amplified Khotanese version, and full awareness of the distorting effect of the spelling habits of the Late Khotanese copyists and scribes.

Second, the paper aims to present the most common grammatical errors, spelling mistakes, and orthographic peculiarities recognised from an in-depth investigation of the 29 thus-far identified prescriptions within various Āyurvedic sources (e.g. *Carakasamhitā*, *Suśrutasaṃhitā*, *Bhelasaṃhitā*, *Aṣṭāṅgaḥṛdayasaṃhitā*, *Siddhasāra*). This preliminary examination will lay the groundwork for deciphering the Sanskrit text as a whole. The mistakes will be categorised into six sections:

1. errors due to the similar shapes of letters in this specific variety of Khotanese Documentary Script (e.g. confusion of vowel diacritics in conjunction with *l*; confusion of *c* and *v*; omission of akṣaras);
2. spellings of consonants, improper conventions, and use of diacritics unfitting for a Sanskrit text (e.g. *tt* for Skt. [t]; unetymological anusvāras; the use of the *ā*-diacritic; use of the subscript hook);
3. vowel mistakes and alternations (e.g. *ā* for Skt. *o*; use of *ā* for representing several vowels; carelessness for vowel quantity);
4. consonant mistakes and alternations (e.g. deaspiration of stops; degemination and gemination of consonants; interchange of *ṇ* and *n*);
5. occasional mistakes (e.g. syncope; vowel assimilations; apparent metatheses);
6. grammatical mistakes (e.g. lack of agreement; improper use of case forms).

The presentation will focus on specific case studies, exploring the significance of these errors in advancing our still incomplete understanding of Late Khotanese phonology. It will be demonstrated that the “barbarous” nature of the Sanskrit version is due to its transcription by a non-native Sanskrit speaker, possibly the Late Khotanese scribe who also wrote the Khotanese section. This scribe adapted Sanskrit words to his own writing conventions and phonological system (Del Tomba forthcoming). Moreover, a comparative analysis with analogous “errors” found in the so-called *Conversation Manual* (Kumamoto 1990), a Sanskrit-Khotanese bilingual text, suggests that the JP manuscript may have been transcribed by a Khotanese scribe taking dictation.

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## The Yaghnobi Augmented Past: Implications from the ‘Dependent Form’

ISKANDAR DING

The Yaghnobi verb has a particular inflectional form which Bogolyubov (1966), Khromov (1972), and Novák (2010) call ‘the dependent paradigm’ (Ru. *zavisimaya paradigma*; Cz. *závislé paradigma*), and Bielmeier (1989) calls the ‘dependent or short form’ (*abhängige oder Kurzform*). This ‘dependent form’ (henceforth DF) is attested in the non-past and past tenses, whereby, in a series of two or more conjoined verbs that share the same tense-aspect (TA) and person-number (PN) categories, only the first verb is marked for all these categories. In the non-past, the DF does not have the imperfective aspectual marker *-išt*, but in the past, it has neither the aspectual marker (in the case of past imperfective, i.e. imperfect) nor the PN agreement markers, e.g.:

### (1) NPST

*oli gudak suxs -t -išt mir -t.*  
Āl.obl. child burn 3sg.npst. ipfv. die 3sg.DP  
‘The Āl’s child burns and dies.’

### (2) PST

*man a- jax -im osta a- wes.*  
1sg.pron. AUG rise 1sg.pst. slowly AUG descend.DP  
‘I got up and slowly went down.’

Theoretically, the Yaghnobi DF can be equated with the phenomenon of ‘suspended affixation’ (SA) in Turkish, studied in depth notably by Kornfilt (1996, 2012), Kabak (2007), and Kharytonava (2011). These scholars have shown that in a series of coordinated verbs, the conjuncts with SA must be terminal forms that do not disrupt the TA and PN categories of the whole clause, and in Turkish verbal morphology, these are usually participles. In light of this, it is curious that the Yaghnobi past DF should be endingless whilst the non-past DF must carry a person-agreement ending, as the endingless past DF is formally the augmented verb stem *a-V* which, when terminal, is understood as the 3sg. pst. and therefore incongruent with 1p, 2p, or 3pl. clauses.

This paper argues that the Yaghnobi *a-V* as a terminal form has acquired the feature [-personal] through contact with Early New Persian and Tajik varieties, as it bears striking resemblance to what is referred to by Lazard (1963) as ‘*verbes sans désinences*’ and by Lenepveu-Hotz (2014) as ‘*économie de la désinence*’ in ENPers., whereby in a series of coordinated past verbs with the same subject, often only the first one bears the personal ending, the rest of the conjuncts appearing as past stems in *-t~d*, which are also past participles, i.e. non-personal and terminal:

(3) *tauba kard -am va bāz gašt.*  
repentance do.pstm. 1sg.pst. CONJ back return.pstm.  
‘I repented and returned.’ (Lazard 1963:270)

Moreover, this ENPers. construction seems to have been preserved in the Panjakent, Darvoz, and Mastchoh dialects of Tajik, as noted by Ivanova (1956), Rosenfel’d (1956), and Khromov (1962). In these dialects, the first item of a series of coordinated non-past verbs with the same subject is fully inflected, whereas the rest of the conjuncts remain as past stems in *-t~d*:

- (4) *xudam menavis -am ovarđ.*  
 myself write.npstm. 1sg. bring.pstm.  
 ‘I will write [it] and bring [it] myself.’ (Khromov 1962:63)

Given that the Panjakent and Mastchoh dialects of Tajik belong to the Central dialect group (Rastorgueva 1964) spoken in the upper Zarafshon Valley in the vicinity of the Yaghnob Valley, it is likely that ENPers. varieties, which exhibited the *économie de la desinence* and of which the Panjakent and Mastchoh dialects are modern descendants, influenced the ancestor of Yaghnobi. This further suggests that it is necessary to recognise the *a-V* form of the Yaghnobi verb as the past stem – even though so far only the Yaghnobi scholar Mirzozoda (2008) has explicitly used this term – not only because the augment *a-* is compulsory in past tense formations and *a-V* is the equivalent of what is recognised as the ‘imperfect stem’ in the closely related Sogdian and Khwarezmian, but also because, as the past DF, *a-V* is the equivalent of the ENPers. past participle *V-t~d* and the Tajik past stem.

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## Preverb assimilation and the productivity of verbal prefixation in Iranian

MARCO FATTORI

One of the most challenging problems in researching the history of Iranian languages is the almost complete lack of any direct documentation of Iranian languages from the end of the 4th cent. BC to the beginning of the 2nd cent. AD. Due to this shortcoming, the study of the profound structural changes that characterize the evolution from Old Iranian to Middle Iranian must be treated as a matter of reconstruction rather than of description. In this poster I will propose a contribution on an aspect of this evolution that has received little scholarly attention: the functionality of verbal prefixation. Specifically, I will address the following questions: how long did verbal prefixation continue to be productive in Middle Iranian and how did it change over time before dying out?

In current etymological practice, the antecedent of a Middle or New Iranian verb is usually projected onto the Proto-Iranian stage (e.g. MP *ōzan-* “to kill” < Ir. *\*ava-ǰan-*), as if every prefixed verb already existed as such in Proto-Iranian, but this is obviously an abstraction. The possibility of building new combinations of preverbs and verbs still existed in historical languages such as Avestan and probably Old Persian, and must have ceased gradually. So, for any prefixed verb we could theoretically wonder whether it is a very ancient formation, or it was coined in comparatively late times.

For sure, prefixed verbs having a very idiomatic meaning that are both common to several Iranian languages and to Old Indic are likely to be inherited (e.g. Ved. *pra-mṛṣ-* “to forget, neglect”, MP and Parth. *frāmūš-* “to forget”, BSogd. *fr’wyšcy* “forgetfulness”), whereas isolate formations can be suspected of being later, language-specific compounds (e.g. Khot. *ttumalys-* “consume, devour” < *\*ati-marz-*). However, the distributional criterion alone always leaves room for uncertainty. In my poster, I will propose a way of establishing with more reliability the relatively late coinage of some prefixed verbs.

In particular, I would like to discuss some Middle Iranian verbs that show an unexpected sandhi between preverb and root, suggesting that the composition took place when the rules of Old Iranian internal sandhi had already ceased to apply systematically. I considered the preverbs *us-* and *niš-*, which in Old Iranian regularly underwent voicing to *uz-* and *niž-* when followed by a vowel or a voiced consonant. My assumption is that, at a stage when this kind of sandhi did not operate anymore – so, in an unattested post-Old Iranian stage – the prefixation of *us-* and *niš-* could cause devoicing of the first consonant of the root. The examples of this phenomenon that I would like to discuss are:

- MParth. *ʿsp’w-* “to terrify” < *\*us-* + *mau-* (expected *\*uzmau-*, with *p* as denasalized outcome of the devoicing of *m*), compare MParth. *prm’w-* “id.” – see already Cheung 2007 s.v. *\*pauH-*.
- MParth. *nyš’m* “darkness”, BSogd. *nšm(y)* “west” < *\*niš-* + *ǰam-* (expected *\*nižǰam-*) lit. “to go down (with reference to sunset)” – earlier explanations in Benveniste 1936: 230, Henning 1940: 24, Gershevitch 1959: 233 etc.
- Pahl. *spōz-*, MMP *ʿspwxt* (ppt.) “to push away, reject” < *\*us-* + *bauǰ-* (expected *\*uzbauǰ-*) lit. “to free oneself from” or the like, compare Chor. *ʿβwzy-* “to drag, pull out, away” < *\*apa-bauǰ-* in Henning 1971: 11b) – isolated verb, no Ilr. etymology, see Cheung 2007 s.v. *\*spauč-*.
- Sogd. *ʿskw-* “to continue, keep, remain” < *\*us-* + *gaw-* (expected *\*uzgaw-*), compare the usage of Chor. *βy’wy’cyw* “go on, tell more”, Henning 1971: 9b-10a – unlikely explanation from *\*sak-* “to pass (said of time)” in Gauthiot 1914: 82.

The proposed interpretation does not only allow to reconcile these otherwise unclear verbal forms to well attested roots, but also contributes to shed some light on an interesting aspect of the comparative history of the Iranian languages, which would deserve to be studied more systematically in the future.

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## Text Setting in Ossetic

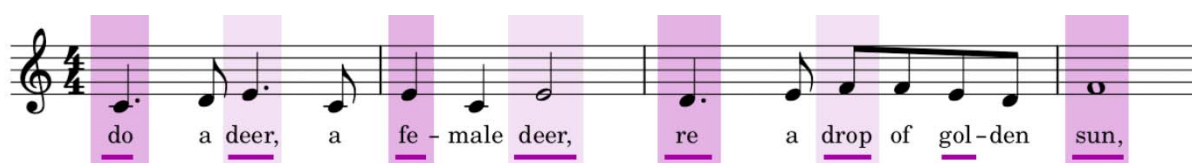
KIRILL FESSENKO

I am currently investigating a corpus of Ossetic folk songs with the goal to resolve debate about some properties of Ossetic syntax. My argument relies on describing the constraints that affect the mapping between prosodic phrasing (ultimately dependent upon aspects of syntactic structure) and musical meter, rhythm and tune.

There are a number of outstanding issues involving the syntax of Ossetic. Recent theory-rich investigations of verb position (Borise & Erschler 2022) have claimed that the verb may occupy a number of distinct structural positions in the clause, and that these positionings have implications for prosodic phrasing. That study, however, leaves unclear the semantics expressed by the various placements of the verb. Rodriguez-Vasquez (2010) discusses the constraints upon the linkage between sentence structure and melodic line ('text-setting'). Providing clearly-notated instances of melodic phrasing, a corpus of Ossetic folk songs is a ready testing ground for the theory of Ossetic verb placement.

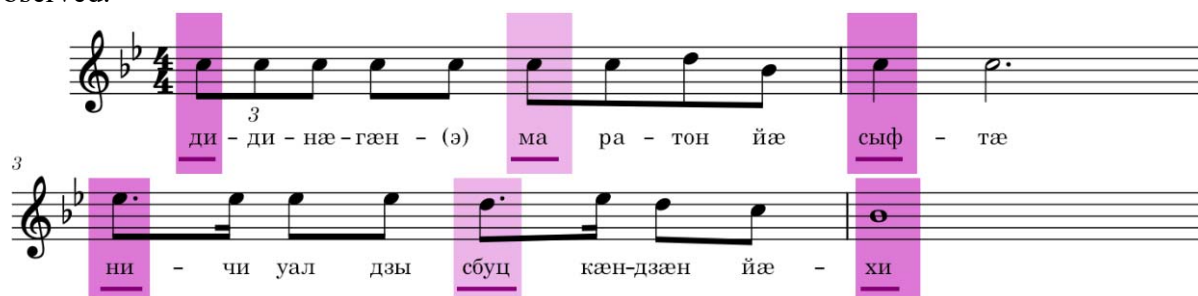
As part of this larger project, the proposed paper takes a look at text setting in Ossetic songs. If many poetic conventions impose metric constraints on linguistic output, music can be seen as an additional enforcement of these constraints, since music follows its own meter, often very strict and regular. The initial assumption is that the musical and poetic meters be aligned for the lyrics of a song to sound acceptable.

Section 1 presents text setting examples for several conventional European-language songs, the take-away being that stressed syllables pattern with strong beats for these songs.



A sample of English-language songwriting, which shows close correspondance between stressed syllables (underlined) and strong beats (highlighted).

Section 2 presents examples of Ossetic songwriting where the same correspondances are observed.



didinegen ma raton jə sɒftə  
flower.ABL neg.IMP tear.2sg.PRS 3sg.GEN petal.pl  
*Do not tear petals from the flower*

nitʃi wal dzə sbuts kændzæn jəχi  
No-one anymore 3sg.ABL joy do.3sg.FUT 3sg.REFL  
*No one will enjoy them anymore*

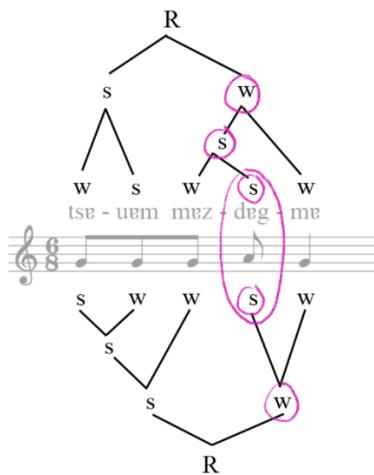
However, Ossetic presents numerous examples of songwriting where there seems to be no pattern of matching stressed syllables to strong beats. If stress is notated lexically, each word receives stress following a set of rules outlined in Bagaev (1965:17). Identified in this way, stressed syllables occur with a significant amount of mismatching in many Ossetic songs.



A sample of Ossetic-language songwriting, which shows mismatching between stressed syllables and strong beats.

də dɛ mɛ bellits, rɛsukd tʃəzɡaj, fɛlmɛn midbəl mɛm fɛχud  
 2sg.NOM are my dream pretty girl soft smile 1sg.DAT smile.2sg.IMP  
 You are my dream, pretty girl, smile softly at me

Section 3 analyzes a sample of Ossetic songwriting which likewise shows mismatching stress. The analysis refers to Abaev's (1939) model of Ossetic stress to try and reconcile the mismatches. The main insight provided by Abaev is that Ossetic has prominent phrasal stress, in which word-level ("lexical") stress can be erased or overridden by principles regulating the stressing of phrasal groups. I show in this section that given a strict interpretation of phrasal stress as presented by Abaev, there continue to be instances in which the resulting stresses (now "phrasal" rather than "lexical") fail to completely resolve all instances of mismatch.



Phrasal stress and rhythmic structure can be broken down hierarchically. Juxtaposing these hierarchies can reveal the degree to which a language tolerates mismatches between weak/strong syllabic stress and weak/strong musical beats.

Section 4 analyzes a second sample of Ossetic songwriting. This second analysis refers to Liberman's (1979) work on metrical phonology. Although the analysis also fails to provide a full and complete account of the data, it allows us to quantify degrees to which the songwriting of different languages tolerates stress mismatches. From this point of view, Ossetic is much more tolerant to such mismatches as opposed to, e.g., English, French or Russian, but nevertheless can be shown to not tolerate just any arbitrary clash.

Section 5 walks through methods, developed on the foundation of Abaev's and Liberman's linguistic research, which provide detail about a language's tolerance for mismatches between its syllabic stress and the musical meter it is set to.

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## *Firiya û çû*: Complex predicates in Kurmanji Kurdish translations

ANNETTE HERKENRATH

This paper looks at verb-verb constructions in Kurmanji Kurdish. This kind of construction has been a much-discussed topic in Turkic and Transeurasian linguistics (Demir 1993, Kuribayashi 2018, Csató & Johanson & Karakoç 2019), however, much less so in Iranian linguistics.

Iranian linguistics has a research tradition on complex predicates, focusing on two widespread phenomena: light verb constructions and periphrastic constructions. Light verb constructions, or compound verbs (*verbes composés*, Bedirxan & Lescot 1970: 182–189) involve a lexical noun (or adjective, adposition, particle etc.) and a semantically bleached verb (Megerdooian 2001, Folli & Harley & Karimi 2005, Korn 2013, Faghiri & Samvelian 2014, Saedi 2016). Periphrastic constructions involve a finite auxiliary and a nonfinite or subjunctive verb. They can involve verbs of motion such as ‘come’, expressing prospective aspect in Balochi (Jahani 2016: 265–266) or passive voice in Kurmanji Kurdish (Bedirxan & Lescot 1970: 194–198), or non-motion, such as ‘hold/have’, ‘stand’, ‘remain’, expressing iterative, durational, or imperfective aspect (Korn 2020: 481–484, 492, Haig 2018).

Analytical constructions involving two finite verbs ( $V_{\text{fin}} V_{\text{fin}}$  constructions) seem to be rarer. Jahani (2026: 263–264) discusses the Persian auxiliary *dāštan* ‘have’, in a prospective function; the same construction can also have a continuous meaning. Anything in the way of what is referred to as pre- and postverbs in Turcological linguistics (Demir 1993) does not seem to be part of the discussion. Haig’s (2022) inventory of post-predicativity does not include any verbal elements. These discussions are not linked to the discussion of so-called ‘contiguous verb sequences’ in Turkic and Transeurasian linguistics (Csató & Johanson & Karakoç 2019). Those studies, on the other hand, do not include any Iranian languages. The topic of  $V_{\text{fin}} V_{\text{fin}}$  constructions in Iranian and in Turkic-Iranian contact has to my knowledge not yet been taken into full consideration.

The present paper studies  $V_{\text{fin}} V_{\text{fin}}$  constructions in the Kurmanji Kurdish translation of Yaşar Kemal’s (1955) novel *İnce Memed 1*: Kemal & Abidîn’s (2002) *Memê Zirav 1*, some 90 findings so far. The working assumption draws on discourse-based grammaticalisation theory (Hopper 1987), ideas of fuzzy grammar (Bolinger 1961, Corver & van Riemsdijk 2001) and ambiguity issues in verb sequences research (Csató & Johanson & Karakoç 2019b). The goal is to tease out a classification of constructions on a range between free ad-hoc descriptions of actions made up of several components and more closely knit combinations that arguably reach a status of grammaticalised fixity; see examples (1) to (4), featuring the potential postverb *çûn* ‘go’. The corpus is presently limited to translated texts; however, this is intended as a first step towards comparison with non-translated original texts.

- (1) *Roj ser-ê xwe hilda-bû di-çû.*  
sun head-EZF.M RFL lift.up.PAR-COP.PST.3SG ASP-go.PST.3SG  
‘The sun had lifted up its head [and] was going on its way.’
- (2) *Lê roj hilweşiya çû ser pişt-a çi-yan.*  
but sun collapse.PST.3SG go.PST.3SG ADP back-EZF.F mountain-OBL.PL  
‘But the sun collapsed [and went/ got lost] behind the mountains.’
- (3) *Li.ser ser-ê şax-eke çinar-ê de teyr-ek*  
on top.end-EZF.F branch-İND.EZF.F plane.tree-OBL.F ADP bird-one  
*hebû, gava xuşexuş-î çêbû, firiya*  
exist.PST.3SG when crackling.sound-İND occur.PST.3SG fly.away.PST.3SG  
*û çû.*  
and go.PST.3SG

‘At the top end of one of the branches of the plane tree a bird was sitting, when a crackling sound occurred, it flew away [flew and went].’

- (4) *Di-mr-im*            *di-ç-im*            *eve*.  
 ASP-die.PRS-1SG    ASP-go.PRS-1SG    PTC  
 ‘I die, that’s it.’

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## Pronouns and morphosyntactic alignment in Northern Talyshi

STEVEN KAYE

As has been documented most thoroughly by Haig (2008), the morphosyntactic alignment systems of Iranian are hugely diverse both across and within varieties. This diversity primarily reflects the upheaval caused by the emergence of a participial construction with ergative–absolutive traits within an otherwise nominative–accusative grammar (see e.g. Jügel 2015); this construction was eventually integrated into the paradigm as its basic past tense, and most Iranian varieties continue to show complex traces of the resulting TAM-based alignment split.

In this paper I discuss the striking outcome of this process which surfaces in Northern Talyshi (NT), a minority language of Azerbaijan and Iran, building on previous accounts in the light of the information made available by a recent NT text corpus (Kaye 2023). In particular I point to the ways in which this newly published material complements and challenges existing treatments of the role played by *pronominal case-marking* as part of the alignment system, and consider the diachrony of the patterns currently observed.

The issue is best approached by way of the simpler *nominal* system of NT, which presents a structurally neat though counterintuitive alternation. Formally the NT noun is straightforward, having only two cases: in the singular, Direct case is unmarked, and Oblique case bears suffixal *-i*. But in transitive clauses these cases function paradoxically. As illustrated by the following examples (from Kaye 2023), Oblique case does not have a consistent value as a marker on core arguments; in most TAM contexts it marks the object (1, *dast-i*), but in past perfective contexts it instead marks the subject (2, *merd-i*). Conversely, Direct case is assigned to subject *zoə* in (1), but to object *əmr* in (2). Thus (in a somewhat simplified picture for present purposes, which ignores the phenomenon of Differential Object Marking) the two case forms do not just change but exchange their argument-marking functions depending on clausal TAM. An alternative, but seemingly otiose, way to describe this behaviour would be to say that noun paradigms contain both a marked ergative form, used in past perfective contexts like (2), and a marked accusative form, used elsewhere e.g. in (1), but that these forms are always identical.

- (1) *zoə dast-i də-no-ydə bə mavlə*  
 boy[DIR] hand-OBL in-put-PROG to jug  
 ‘the boy [DIR=SUBJECT] puts his hand [OBL=OBJECT] into the jug’
- (2) *çil çilə merd-i əmr əlbəsaət bə virə=şon rosn-i-ye*  
 forty CLF man-OBL command[DIR] immediately to place=3PL.CL bring-II-PRET  
 ‘the forty men [OBL=SUBJECT] immediately fulfilled the command [DIR=OBJECT]’

This distribution is of great antiquity and has, to say the least, gone unchanged since 1902, the date of our earliest text collection (published as Miller 1930). But the behaviour seen in nouns does not tell the whole story, because pronouns can interact with alignment very differently. For example, while the paradigm of the 1SG personal pronoun preserves inherited forms (*az / mi*) commonly labelled Direct and Oblique, in no NT variety are they employed in the ‘noun-like’ distribution seen above (which would give the unattested pattern shown in Table 1); instead the paradigm displays the effects of rationalization/recharacterization of different kinds.

**Table 1.** Hypothetical ‘noun-like’ distribution of Direct (*az*) and Oblique (*mi*) 1SG forms

	Intransitive subject (S)	Transitive subject (A)	Transitive object (P)
default TAM	<i>az</i>	<i>az</i>	<i>mi</i>
past perfective TAM	<i>az</i>	<i>mi</i>	<i>az</i>

The difference in behaviour is unsurprising on typological grounds, and Haig (2017) discusses it for the NT variety of Anbaran (Iran) on the basis of material from Paul (2011); however, he acknowledges (2017: 495) that he is unable to account for the full distribution of 1SG forms as Paul reports it. Along similar lines, Stilo (2018: 780–83) observes that with respect to case-marking in different TAM contexts, in the NT variety of Lerik (Azerbaijan) the various personal pronouns, including third-person forms as well as speech-act participants, act both unlike nouns and unlike one another – noting also that their behaviour appears to have changed over the course of the 20<sup>th</sup> century, in ways demanding a fuller treatment than he can provide.

Against this background I therefore revisit the question of pronominal case-marking in NT, and its relationship with alignment, by taking into account the full contents of Kaye (2023), a glossed 15,000-word corpus of folk tales in Azerbaijani NT, and comparing the pronominal behaviour there with that recorded in Miller (1930), Stilo (2018), and Paul (2011). In doing so I consider the NT facts in broader perspective, after Haig (2017), as representing the outcome not of ‘alignment shift’ as a single entity but of finer-grained changes to partly independent but linked subsystems. My central findings are:

- Pronouns, unlike nouns, *do* require an analysis distinguishing ergative and accusative categories – though the morphological material realizing these differs across varieties.
- The data from Kaye corroborate Stilo’s claim that the use of the pronominal accusative in modern Azerbaijani NT no longer tallies with that recorded by Miller.
- Surprisingly, 1SG forms in particular are distributed differently in *all four* of Miller, Stilo, Paul and Kaye, which thus manifest distinct synchronic systems; but all can be derived from an ancestor more closely resembling the canonical Iranian ‘split ergative’.
- In addition, it is notable that in past perfective transitive clauses, pronominal clitics serve as A-agreement markers, appearing mandatorily alongside the NP they coindex. We should therefore nuance Haig’s (2017: 499) suggested link between the same feature in Central Kurdish and its loss of case marking, which does not apply to NT.

Overall, this research shows how much we still have to learn about even fundamental features of NT clausal morphosyntax – but also the value of even relatively limited corpora for its study.

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## Old Khotanese *o* and *au*

RONALD I. KIM

It is generally agreed that Old Khotanese had a (long) vowel *o* /ō/ and a diphthong *au*. Emmerick (1979:245) observed that *au* “seems to have been monophthongised to *o* right at the beginning of our transmitted texts”, whence such variants as *haur-* ~ *hor-* ‘give’ (< OIr. \**fra-bar-*) or *uysnaura-* ~ *uysnora-* ‘being’ (< OIr. \**uzanā-bara-*, cf. Tumšūqese pl. *usānavara*). The merger product of OKh. *au* and *o* merges with *ā* in Late Khotanese to give frequent spellings such as *uysnāra-* ‘being’ or reverse spellings such as *noma*, *nauma* for OKh. *nāma* ‘name’ (< OIr. \**nāma*).

This paper investigates the distribution of *au* and *o* in those OKh. manuscripts considered most archaic on independent linguistic and paleographical grounds: the *Śuraṅgamasamādhisūtra* (Śgs), ed. by Emmerick (1970) with additional fragments published by Skjærvø (2002); the *Saṅghātasūtra* (Sgh), ed. by Canevascini (1993) and chronologically grouped into 27 MSS; fragments of the *Ratnakūṭasūtra* (Rk) from the Kāśyapa-parivarta (Skjærvø 2003, Maggi 2015); the *Vimalakīrtinirdeśasūtra* (VkN; Skjærvø 1986); and MSS A, B, C, F, Or. of the *Suvarṇabhāsottamasūtra* (Suv; Skjærvø 2004). The Śgs, Sgh MSS 1–4, Rk, and VkN are composed in what Maggi (2021:150) calls “Old Orthography”, characterized by *g* for both [g] and [ɣ] (*gg* vs. *g* in Classical Orthography), *ś* for both [s] and [ʒ] (Classical *śś* vs. *ś*, Late *ś* vs. *śʹ*), and *ṣ* for both [s] and [ʒ] (Classical *ṣṣ* vs. *ṣ*, Late *ṣ* vs. *ṣʹ*).

Based on an analysis of these sources, I conclude that Emmerick’s statement requires slight modification. The contrast of final *-o* and *-au* is maintained very consistently in Śgs, where we find ins./abl. *-yau* (44×) vs. a single instance of *-yo* (*bā[ʹ]yyo jsa* ‘rays’) and *aa*-stem acc. sg. *-au* (13×). Word-medially they are also distinguished for the most part, but a few instances of variation suggest that *au* was beginning to be monophthongized and confused with *ō* (pret. 3sg. m. *byode* ‘obtained’, 3pl. *byodāndā* vs. *byaudāndā*), leading to a possible hypercorrect spelling in *uysnaura* ‘beings’ vs. 29× *uysnora-*. The Rk fragments and MSS 1–5 of Sgh present a comparable picture, but MSS 6–9 of the latter attest multiple examples of confusion in final (acc. sg. *pand]au* ‘path’ for *pando*; ins./abl. pl. *tcemanyo* for *-yau*; ptcp. nec. *tsuñō* for *tsuñau* ‘is to go’) and nonfinal position (*uysnaura-* 4×). The fluctuation of medial <au> and <o> is more advanced in the extensive Macartney Folios (MS 10) of Sgh, with even the high-frequency *uysnora-* ‘being’ spelled *uysnaura-* in one eighth of its occurrences and seemingly random fluctuation in *tcahor-* ~ *tcahaur-* ‘four’, *hot-* ~ *haut-* ‘be able’, *hor-* ~ *haur-* ‘give; gift’, along with other typical post-OKh. innovations such as loss of intervocalic consonants (*hve* for *hvate* ‘said’), *hāṣto* ‘thither’ for *hālsto*, or weakening of final vowels.

It follows that only careful examination of OKh. manuscript variants can determine which forms had “real” *au* and which had “real” *o*. For instance, the attestations of *hor-* ‘give’ in Śgs (2×), Sgh (2× MS 9) indicate that this is the regular development of OIr. \**fra-bar-* > \**hrawar-* > \**hrōr-* and that *haur-* is not an archaism, but a hypercorrect spelling in Sgh MS 10 (4× vs. 2× *hor-*) and later manuscripts. In contrast, the frequency of <au> in *haura-* ‘gift’ (7× vs. 2× *hora-*) suggests that syncope was earlier in trisyllabic forms and so bled contraction of \**-awa-*, e.g. nom. sg. \**fra-barah* > \**hrawri* > *haurā*. However, some discrepancies across manuscripts may be due to scribal practices, e.g. the dominance of *uysnora-* ‘being’ in Śgs and Sgh vs. the marked preference for *uysnaura-* ‘being’ in Suv MS Or. (66 of 70×). Further such studies will yield new insights into the relative chronology of sound changes and hence to our understanding of Khotanese historical grammar.

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## Relative clauses in Balochi, if any

AGNES KORN

Judging by the available descriptions (cf. JAHANI 2008; JAHANI & KORN 2009: 680), it seems that Balochi relative clauses (REL) largely pattern as in Persian, showing the enclitic subordinator *ki/ke*, and head nouns (HN) of restrictive clauses marked with the clitic =*ē*/=*ī* (1). On the other hand, already JAHANI (2008: 161-163) expressed the suspicion that (some of) the Bal. REL patterns might be copied from Persian. In this paper, I will discuss the various types of REL in Balochi as well as competing finite constructions.

REL as known from Western European languages, i.e. following the HN (externally headed, DRYER 2013) are typical of dialects more influenced by Persian (i.e. West Bal.) (1) and to literary style (2). In more oral style, the rather rare externally headed REL are frequently ambiguous with adverbial subordinators, particularly location (space and time) (3).

Likewise occurring in non-literary style are adjoined REL where HN and REL are separated by a one-word predicate (4). Here as well, the ambiguity with locational clauses is found (5). Instances with more than word between HN and REL are again characteristic of literary style (6).

REL preceding the matrix clause are comparatively common; the HN taking the case required for the REL (not the one required for the matrix clause) show that they are internally headed (7). Correlatives show an anaphoric pronoun (or noun, as in Ossetic, cf. BELAEV 2014) in the matrix clause; (8) is an instance without subordinator.

Indeed, clear examples of overtly marked REL are very rare in authentic non-literary oral data. The “remoter” the variety, the more common paratactic clause combinations using intonation alone or in combination with Tail-Head-Linkage (repetition of material from the preceding clause serving as a background for what follows) to establish a subordination-like pattern. Passages such as (9) are quite typical for authentic oral texts in remote dialects, informal style and/or by speakers with limited access to formal education.

I argue that the proximity vs. remoteness of a given variety or style corresponds to the presence vs. (near-)absence of overtly marked REL and to the forms that these take (if at all), with Persian-style patterns on the one end and intonation-marked clause chains at the other. Furthermore, in view of the fact that the Persian subordinator *ki/ke* is the product of a specific development from three different sources, the question arises whether REL, alongside with its marker, are copied from Persian altogether.

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## Examples:

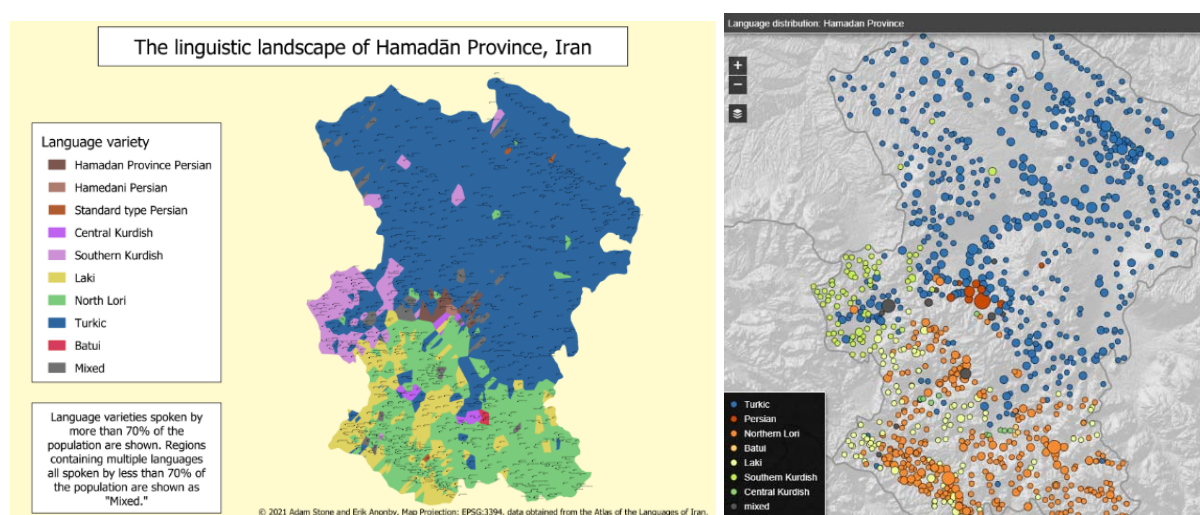
- 1) *gis=ē* { *ki mnī balluk bi āī tahā zindagī*  
house=IND SUB I.GEN grandmother in DEM.GEN inside life  
*a kurt annūn bēxī wayrān int*  
 ASP do.PST.3SG now totally destroyed COP.PRS.3SG  
 ‘The house { in which my grandmother lived } is now totally in ruins.’  
 (West Bal., TM; Jahani & Korn 2009: 680)
- 2) *Daulat-ai pit-ā* { *ki mokaddamah-ai mastir-ēn gwāh o watī*  
PN-GEN father-OBL SUB lawsuit-GEN big.COMP-ATTR witness and own  
*gairatmand-ēn bačč-ai wakīl at* } *bē jst-ā gwašt*  
 honourable-ATTR child-GEN advocate COP.PST.3SG without question-OBL say.PST  
 ‘Daulat’s father, { who was the primary witness and advocate of his son’s honour, }  
 said without being asked: ...’ (literary South Bal., PK; JAHANI et al. 2022: 202, 44)
- 3) *sardī-ā* { *ke brāhem mehrāb-a koš-ī* }  
cold-OBL SUB PN PN-OBL kill.PRS-3SG  
 ‘[These events happened] in the winter { when / in which Brahem killed (lit. kills) Mehrab }’  
 (South Bal., IR; unpublished)
- 4) *čōš-ē* *mard=ē bī* { *ki gunāh čī na-k<sup>h</sup>uθ-a* }  
such-ATTR man=IND become.PRS.3SG SUB sin anything NEG-do.PST-PRF.3SG  
 ‘It should be such a man { who has not committed any sin }.’ (East Bal., PK; JAHANI 2008: 157)
- 5) *gwat=ī* *ham-ā daryā kap-e* { *ke jōl-ter en* }  
 say.PST=PC3SG DEM2.EMPH sea fall.PRS-2PL SUB deep-EL COP.PRS.3SG  
 ‘He (the lion) said: “Fall into that sea, { which is / where it is very deep }!” (curse)’  
 (South Bal., IR; unpublished)
- 6) *du kas āiai nēmag-ā pēdāk at*  
two person DEM.GEN side-OBL visible come.PST.3SG  
 { *ki ča dūr-ā āyānī dēm gind-ag na-būt-ant* }  
 SUB from far-OBL DEM.GEN.PL face see.PRS-INF NEG-become.PST-3PL  
 ‘Two people were approaching { whose faces were not visible from afar }.’  
 (literary South Bal., PK; JAHANI et al. 2022: 198, 38)
- 7) { *čīz=ē-rā ki dīn guš-īt* } *wāgīyat dār-īt*  
thing=IND-OBJ SUB religion say.PRS-3SG truth hold.PRS-3SG  
 ‘{ What religion says } holds true.’ (lit.: { Which thing religion says }, [it] holds truth.)  
 (West Bal., AF; JAHANI 2008: 147)
- 8) { *ēšīyā ma har jā bar-ē* } *ē jerg-ī*  
DEM2.OBJ we any place take.PRS-1PL DEM jump.PRS-3SG  
 ‘{ Wherever (lit. whatever place) we take him, } he escapes.’ (South Bal., IR; unpublished)
- 9) *nī hamēš en do brāt at-ā*  
 now DEM1.EMPH COP.3SG two brother COP.PST-3PL  
*nī hamē brāt hamingō čō bī*  
 now DEM1.EMPH brother this\_way like become.PST.3SG  
*mand-ā kār-ā at-ā*  
 PN-OBL work-OBL COP.PST-3PL  
 ‘Now it is like this, there were two brothers; and these brothers, it was like that,  
 they had business in Mand.’ (South Bal., IR; unpublished)  
 ▶ There were two brothers who had business in Mand.
- Cf. colloquial German:  
*Wir haben einen Kunden, und sein Hobby ist fotografieren.*  
 ‘We have a client, and his hobby is taking photos.’  
 (▶ We have a client whose hobby...)

## Mapping language distribution in Hamadan Province, Iran

MEHRDAD MESHKINFAM, ELHAM IZADI & MORTAZA TAHERI-ARDALI

Hamadan Province has been a significant cultural hub throughout Iran's history. The languages of the province reflect the diverse social and ethnic influences that have shaped the region over millennia. This province is typically known as an area where Persian is spoken alongside a few other languages, especially Turkic, across the province. Several studies have investigated the languages in this region, mostly as individual research efforts (Ahadian, 2010; Azkaei, 2021; Gholami, 2021; Sabouri, 2022, among others). However, no methodical and detailed research on the language situation has been conducted at the provincial level yet. What do the speakers call their own languages? What languages are spoken in each settlement and in what proportions? And, how are place names pronounced locally? The present research, as part of a larger research endeavour, aims to respond to these questions and ultimately map out language distribution in Hamadan Province following the methodology outlined in the *Atlas of the Languages of Iran* (ALI) project (Anonby & Taheri-Ardali, et al., 2015-2024; Anonby et al., 2019).

To map language distribution in Hamadan Province, we employed existing open-access demographic data (ISC 2011), originally provided in an Excel file, which contains the names of over 1200 settlements along with their sub-provincial divisions and population. From November 2017 to April 2021, we collected data through literature reviews, community interviews, interactions with language experts in the province and our linguistic background and experiences, providing insights into the languages spoken within each community and the estimated proportions of speakers for each mother tongue. With technical support from the Geomatics and Cartographic Research Centre (GCRC), we uploaded the existing and newly collected data to the ALI website, creating an interactive point-based map within the Nunaliit framework (<https://iranatlas.net/module/language-distribution.hamadan>) and a static polygon map using the freeware mapping program QGIS (<https://www.qgis.org>) (Figure 1).



**Figure 1.** Language distribution in Hamadan Province: static polygon map (L) and interactive point-based map (R). Online at: <https://iranatlas.net/module/language-distribution.hamadan>.

The results of our research, as illustrated in the maps in Figure 1, show that two predominant language families are spoken in Hamadan Province: Turkic in the north, and a variety of Iranian languages in the south. Turkic varieties are spoken throughout the northern half of the province, across a high plateau bounded by mountains. The Turkic-speaking zone extends southward right down to the capital city of Hamadan, and continues along the eastern side of the province and well into the south. Iranian languages are found in the south and west

quadrants of this province, spanning an area where mountains and broad valleys alternate. Although this area covers only a third of the province, linguistic diversity is high: Southwestern Iranian is represented here by Northern Lori and the distinctive Hemedani Persian dialect group, and the Kurdish branch of Iranian includes Laki, Southern Kurdish, and Central Kurdish. The Northwestern Iranian Judeo-Hamadani language, documented by Gholami (2021), is no longer spoken. While the Hemedani Persian group is centred in the capital city of Hamadan and tightly clustered around it, the other Iranian languages are interspersed with one another in patches across the province's Iranian belt.

We discovered several interesting findings about the languages in this province during the fieldwork. First, there is a variety known as Batui spoken in three settlements: Qal'eh-ye Kartil Ābād, Nakil Ābād, and Gol Dasteh. While an analysis of its structure remains to be carried out, Saloumeh Gholami (personal communication, 2019) suggests that this variety falls within Laki. Second, at the time of this research, there is only a single remaining heritage speaker of Judeo-Hamadani, who is no longer using the language. Third, linguistic contact is evident throughout the entire province, and in many cases, we had to carry out follow-up research to confirm proportions of each language community in multilingual settlements. Finally, in most areas of the province, there is a significant proportion of younger people, generally varying between 10 and 30 percent of each community, who have learned Persian as a mother tongue in the home. It is our observation that these Persian varieties, while modelled after standard and Tehrani-type Persian, are strongly characterized by the retention of linguistic features from the speakers' heritage languages.

This contribution has set the stage for the subsequent phase of the project in Hamadan Province by facilitating the selection of research sites for further data collection. In this next phase, already underway, we are collecting linguistic data using the ALI questionnaire (Anonby, Taheri-Ardali, Haig, et al., 2020) as well as video and audio recording of oral texts.

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## The connection between counterfactual and past habitual in two successive generations of affixes in New Persian (10th–20th centuries)

ROOHOLLAH MOFIDI

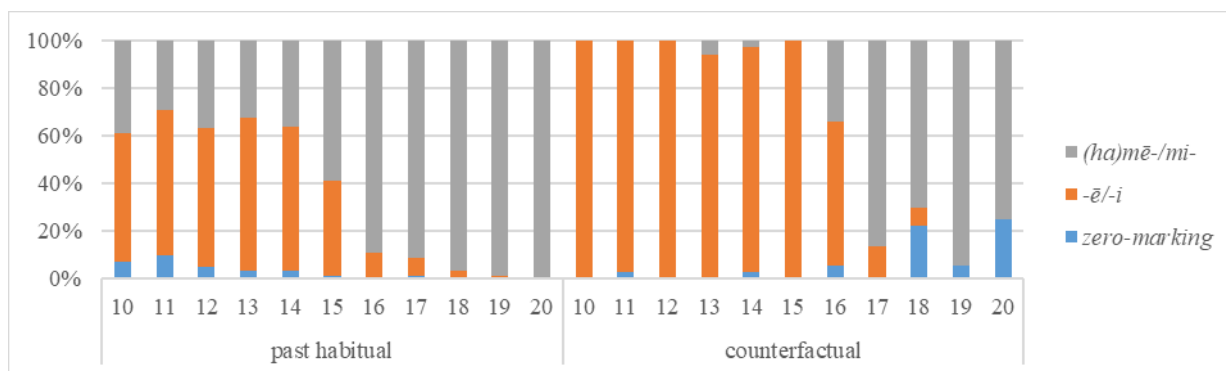
In Contemporary Persian, the most common way of expressing counterfactual conditionals and wishes is the use of imperfective prefix *mi-* with past tense verbs (in protasis or apodosis, or both), in contrast to the subjunctive marker *be-* that is prefixed to present tense verbs to express the factual counterparts (see Examples 1a–b for counterfactuals; Yousef 2018: 268–278 for more examples; Vydrin 2011 for theoretical information). Other forms of counterfactual encompass the past perfect construction (in protasis or apodosis, or both) as well as the verbs *bud-* (be.PST) and *dāšt-* (have.PST) which mostly appear without *mi-*. However, *mi-*-marked forms express imperfective aspect in this language in the present and past tenses as well (see Example 2), and the distinction between the different grammatical functions of *mi-*-marked forms lies in the context.

- 1) a. *age dah tā kāmīyun tahye mi-kard-an ĉi mi-šod?*  
if ten number truck provide IPFV-do.PST-3PL what IPFV-become.PST[3SG]  
‘If they would provide ten trucks, what would happen?’
- b. *kāš-ki be gur mi-raft.*  
wish-that to grave IPFV-go.PST[3SG]  
‘I wish he would go to the grave!’
- 2) *tābestān-hā duq va zemestān-hā ... māhi mi-foruxt.*  
summer-PL yoghurt and winter-PL fish IPFV-sell.PST[3SG]  
‘He used to sell yoghurt in the summers and fish in the winters.’

This usage-based investigation is concentrated on the multi-functionality of *mi-*-marked forms, which denote either counterfactuality or the factual imperfective interpretation. This connection between the functions of *mi-* is diachronically preceded by a similar connection in the usage of suffix *-ē/-i* in older varieties of Persian, which expressed counterfactuality as well as past habituality (see Examples 3a–b for counterfactuals; Example 4 for past habitual).

- 3) a. *agar asāker meyl=e obur kard-and-i, šāy-est-i.*  
if army.PL desire=GEN passing do.PST-3PL-CF deserve-PST[3SG]-CF  
‘If the armies would desire for passing, it would be possible.’
- b. *ey kāš man dabiri na-dān-est-am-i.*  
Oh wish I writing NEG-know-PST-1SG-CF  
‘I wish I didn’t know writing.’
- 4) *ba’d az ān har ruz-ē ... bi nazdik-i šayx āmad-ē.*  
after from that every day-INDF to beside-GEN Sheikh come.PST[3SG]-HAB  
‘After that, he used to come to the Sheikh every day [to see him].’

The utilized data of New Persian (the 10th century onwards) originate in a recently designed diachronic dataset, sampled from 55 texts (5 texts per century). This dataset comprises 77,000 verb tokens (1400 per text), annotated for TAM categories and some grammatical features. The results demonstrate the gradual disappearance of the suffix and the extension of the developing prefix for the functions which were formerly expressed by the older generation marker, i.e. suffix (Figure 1).



**Figure 1. The competition between  $-\bar{e}/-i$  and  $(ha)m\bar{e}/mi-$  in the 10th to 20th centuries**  
(Past habitual: 2875 tokens, Counterfactual: 405 tokens)

Figure 1 displays a functional overlap between  $-\bar{e}/-i$  and  $(ha)m\bar{e}/mi-$ , which creates a competitive situation, leading to the adoption of the functions of the former affix by the latter. This phenomenon might be explained by the metaphorical term *attraction* (De Smet et al. 2018) or more classically *analogy*, whereas the competing markers become more alike. However, the later development of the counterfactual function of  $(ha)m\bar{e}/mi-$ , compared to its earlier developed habitual function, can be due to the existence of  $-\bar{e}/-i$  which served the counterfactual function. In a general scenario,  $(ha)m\bar{e}/mi-$  began its grammatical life in certain functions of the imperfective aspect domain, with a later development of counterfactual function.

Contrary to Lenepveu-Hotz’s (2014) findings, the past habitual was widely expressed by  $(ha)m\bar{e}/mi-$  since the beginning of the New Persian period (35% of all past habituals in the 10th to 14th centuries). Therefore, it is possible that the competition had started well before the 10th century. This idea might render the entire situation as a mere diachronic substitution of the markers, rather than “the reorganization of the aspectual and modal markings in New Persian” (Lenepveu-Hotz 2014: 232). The observation that the connection between past habituality and counterfactuality is re-generated by the new grammatical marker re-emphasizes the well-attested semantic proximity of these two functions in the imperfective domain.

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## Aren't Conditionals Quantifiers?

MARYAM MOHAMMADI

**Introduction.** Modality empowers languages to discuss affairs beyond actual reality by expressing possibilities and necessities (von Fintel 2006). Kratzer (1986) claims that if-clauses restrict the truth of the consequent based on the antecedent. Additionally, unless-clauses are construed as exceptive conditionals, adding a level of uniqueness to restrict the domain (von Fintel 1992). This study delves into *mage* 'unless' conditionals in Farsi, which is surprisingly understudied in the literature. We claim that *mage* does not inherently convey negation and it expresses not only an exceptive meaning but also a possibility modal sense, excluding any alternative potential for the consequent to hold.

**Data.** The prevailing assumption posits that *mage* comprises *ma-*, the historical allophone of the negative affix *na-*, and *age* 'if'. Consequently, *mage* has been literally interpreted as 'not-if' and widely translated as 'unless' in English. The data will unfold in three steps: (I) a comparison between *mage* and *unless* demonstrates that *mage* does not inherently convey negation. (II) a comparison between *mage* and *age* shows that *mage* implies the *possibility* of the exceptional consequent under a hypothetical antecedent. (III) the non-conditional usage of *mage* reveals that, akin to its conditional, *mage* express the possibility of an exceptional case.

**I.** English *unless*, in both [*unless p, q*] and [*q, unless p*], can be generally replaced by *only-if-not* (Quirk et al. 1972, Vostrikova 2019, a.o., cf. *except-if-not* in von Fintel 1992). However, the presence and absence of negation (indicated in bold) in the minimal pairs of (1) and (2) does not allow such substitution in Farsi (while they both have the same intended meaning).

- |  |  |
|--|--|
| 1) <i>mage dars-bexuni, (ta) na-yofti.</i> | 2) <i>miofti, mage dars-bexuni.</i>      |
| MAGE study that NEG-fail                   | fail MAGE study                          |
| 'Only if you study, you would not fail.'   | 'You would not fail, only if you study.' |

We posit that *mage* in (2) consist of two separate sentences as in (2'), where the second sentence has an (TP) elided consequent, presented in gray. Notably, the presence/absence of negation is independent of the clause order (relevant examples are omitted due to space reasons). Thus, the negation is not native to *mage*. Firstly, we argue that the elided part in (2') can be felicitously uttered without any sense of redundancy, but with added emphasis.

- (2') [*miofti*], [*mage dars-bexuni (ta) na-yofti* ]  
fail MAGE study that NEG-fail

Secondly, example (2) exhibits two intonational boundaries, allowing a pause after the first sentence as well as the insertion of supplementary information, as underlined in (3). However, example (1) has a single intonational boundary, thereby preventing the separation via a pause or the extra information as in (4) (the elided part is supported by the subjunctive claim in II).

- 3) *miofti, hame ham ino midunan, mage dars-bexuni.*  
fail everyone too it know MAGE study  
≈ 'You fail, everyone knows it (too). Only if you study you would not fail.'
- 4) # *mage dars-bexuni, hame ham ino midunan, (ta) na-yofti.*  
MAGE study everyone too it know that NEG-fail

**II.** Mirrazi (2022) shows that in *hypothetical*-conditional *age* 'if' in Farsi (in which the antecedent might or might not be true in reality), the verb in the antecedent needs the SUBjunctive prefix *be-*. Building on that, the consequent of *hypothetical-age* employs the INDicative prefix *mi-*, as in (5). The data, as in (6), reveals that *mage* is exclusively applicable in *hypothetical*- conditionals, where both antecedent and consequent verbs take the subjunctive mood (*be-*).

- 5) *age pizza be-pazi, Ali mi-yad /#be-yad.*  
if pizza SUB-cook Ali IND-comes / SUB-comes  
'If you make pizza, Ali will come.'

6) *mage* pizza be-pazi (ta) Ali #mi-yad / be-yad.  
 MAGE pizza SUB-cook that Ali IND-comes / SUB-comes  
 ‘Only if you make pizza, Ali would come.’

Both examples in (5) and (6) present a hypothetical situation in which the addressee makes pizza. However, the former indicates in that case, Ali will come, whereas the latter conveys that Ali would come. We claim that *mage*, but not *age*, expresses the possibility modal.

**III.** Finally, the *possibility* meaning of *mage* becomes evident in non-conditional usage. In (7), *mage* indicates the possibility of finding an umbrella in CVS (rather than anywhere else).

7) No umbrella in the campus shops! I’m going to the center. *Mage* CVS čatr peida bo-konam.  
 MAGE CVS umbrella find SUB-do  
 ‘I would find an umbrella in CVS.’

Furthermore, in non-conditional forms like example (8), *mage* appears similar to *bejoz* ‘except’ (cf. *but* in von Fintel 1992). However, (B1) expresses the possibility of the exceptional case, while (B2) conveys that the exceptional case has indeed occurred (that Ali went to the party).

8) A: Did anybody go to the party?	
B1: hičkas na-rafte, <i>mage</i> Ali. nobody NEG-went MAGE Ali ‘Nobody went, except maybe Ali.’ ↪ Ali would have gone	B1: hičkas na-rafte, <i>bejoz</i> Ali. nobody NEG-went except Ali ‘Nobody went, except Ali.’ ↪ Ali went

While *bejoz* in (B2) quantifies over entities, it is part of the *hičkas*-DP that undergoes movement. This is evident as it can be expressed as [*hičkas bejoz Ali...*] or [*bejoz Ali hičkas...*]. However, *mage* in (B1) cannot be varied; [#*hičkas mage Ali...*] or [#*mage Ali hičkas...*]. We argue *mage* scopes over a proposition with an elided (subjunctive-)VP ([*rafte ba-še*] ‘SUB-went’).

**Proposal.** We propose the definition in (9), where *mage* indicates that there is a possible world that holds  $q$  ( $w \models q$ ), where in those worlds  $p$  and  $q$  are compatible. Additionally, in all worlds that are not  $p$ -worlds ( $w \not\models p$ ),  $q$  doesn’t hold.

(9) [[*mage*]] =  $\lambda q. \lambda p. [\exists w \in W : w \models q \wedge q(w) \wedge p(w)] \wedge [\forall w \in W : w \not\models p \rightarrow \neg q(w)]$

We argue that in extraposed [ $q$ , *mage*  $p$ ], the speaker expresses the impossibility of  $q$ , while [*mage*  $p$ ], including an elided  $q'$ , serves as an (ostensible) afterthought marking the exceptional circumstance for  $q$ ’s possibility. We’ll show in non-conditional forms,  $p$  is resolved contextually.

**Conclusion.** The study presents novel data of Farsi *mage* ‘unless’ in various forms, challenging the conventional understanding of its inherent negation and advocating for its modal interpretation. Drawing upon the quantifier perspective of conditionals (Kratzer 1986, von Fintel 1994, a.o.), the research offers a unified analysis of *mage* across both conditional and non-conditional structures. Furthermore, the analysis holds promise for further extension to include the use of *mage* in interrogatives, where it functions as a discourse particle, implicating speaker’s prior belief against the contextual evidence for the question’s proposition (Mameni 2010, Mohammadi 2023).

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## Object indexing in Hewramî: a corpus study

MASOUD MOHAMMADIRAD

This study addresses object indexing in Hewramî in TAM constructions derived from past stem verbs. The data come from two spoken corpora from the Tekht variety of Hewramî which feature nearly 36000 words (see Mohammadirad in prep, in review). The presentation aims to address the following questions: (i) the token frequency of object agreement in discourse and how the presence or absence of agreement relates to the overt vs. null realisation of O arguments; (ii) factors conditioning object indexing in Hewramî.

Following Haspelmath (2013), I use the term ‘indexing’ as a cover term for the ‘agreement’ phenomenon encompassing both ‘grammatical agreement’ and ‘anaphoric agreement’. The term ‘agreement’ is reserved for cases where the index obligatorily marks an argument regardless of the presence or the absence of the coreferent NP in the clause. Agreement in this sense parallels what Haig (2018) refers to as ‘obligatory’ indexing. The following examples illustrate the obligatory nature of O indexing in Hewramî, where the index occurs regardless of the presence or absence of the overt O NP.

- (1) *to min=it qut kerq-a*  
 2SG 1SG=2SG:A pierced do.PST-1SG:O  
 ‘You disabled me.’ [PW.30]
- (2) *mar-êw-î gest-a*  
 snake-INDF-OBL.M bite.PST-1SG:O  
 ‘A snake bit me.’ [MP.09]

	n. past tr. clauses	O is indexed		O is not indexed	
		N	%	N	%
Overt Object NP	973	844	0.87	129	0.13
Null object	355	316	0.89	39	0.11
Total	1328	1160	0.87	168	0.13

Table 1: Indexing O-past arguments

Concerning the first question, the data in Table 1 show that overall, 87% of direct objects are indexed on the verb, meaning that the absence of the indexing is the marked pattern in Hewrami. The presence and absence of agreement marking on the verb exhibit nearly the same proportions for overt and null O arguments. However, it is noticeable that there are slightly fewer overt arguments than null arguments with agreeing verbs.

Similarly, there are slightly more overt O arguments with non-indexing verbs. Thus, the data seem to provide some support for the complementarity hypothesis, which states that null arguments are favoured by overt agreement markers and *vice versa* (see Nichols 2019), though note that the difference between null object and overt object is only 2%.

Turning now to the second question, the factors triggering differential O indexing are manifold. These include, among other things, affix co-optation by a higher-ranked argument (3), animacy (4), and syntactic factors such as the lack of agreement triggered by a measure word on the head noun.

- (3) *sêŋze danê heserê=şa da-Ø pene*  
 thirteen cLF.PL mule.DIR.pL=3PL:A give.3SG:R to  
 ‘They gave him thirteen mules.’
- (4) *penc çemçê=şa nîya=n=re*  
 five spoon.DIR.PL=3PL:A put.PST.PTCP.M=COP.3SG.M:O=POVB  
 ‘They (my family) had set [the cloth with] five spoons.’ [JE.46]
- (5) *wîs kol(e)-ê loke=şa ard-Ø*  
 twenty load-DIR.PL cotton=DIR.M.SG=3PL:A bring.PST-3SG:M:O  
 ‘They brought twenty loads of cotton.’ [ME.120]

What seems to be triggering the lack of agreement is associated with topic continuity; that is, once a doubled argument loses its topical status and is realised as an unmarked, neutral argument with regard to information structure, it fails to trigger agreement on the verb (Iemmolo, forthcoming). In cases where there is a lack of agreement, the 3SG.M form appears as the default agreement marker on the verb.

### Keywords:

agreement; person; gender; number; ergativity

### References

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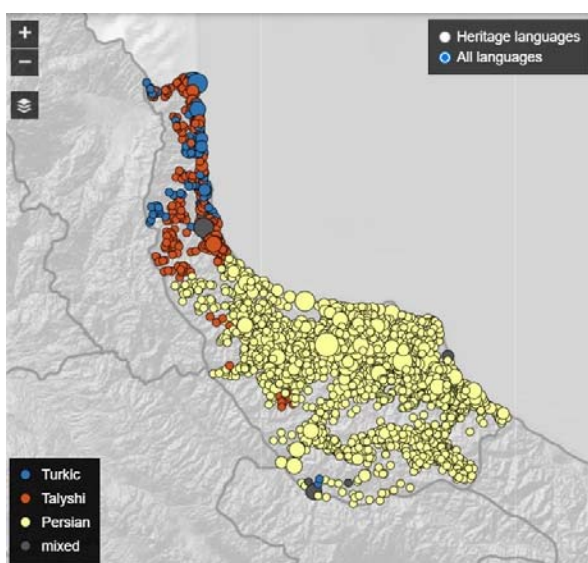
## Mapping the languages of Gilan Province, Iran

HAMIDEH POSHTVAN

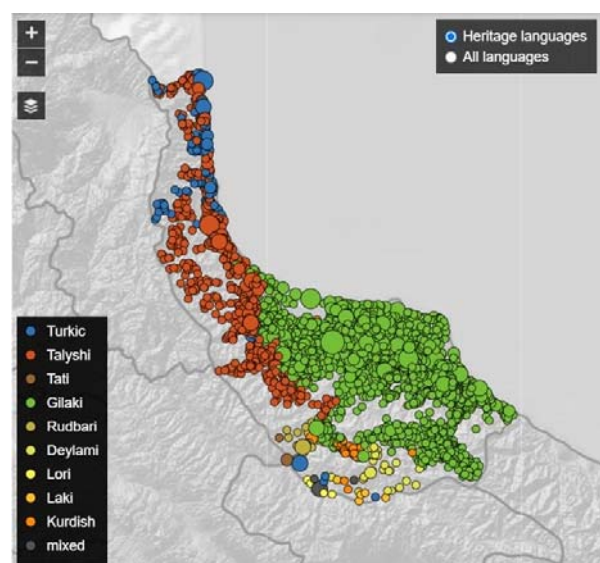
Since the beginning of recorded history, Gilan Province has been home to diverse ethnicities speaking Iranian languages such as Gilaki, Taleshi, Tati, and Tatoid. Islands of immigrant language communities established over the past few centuries, and still spoken in some areas today, are the additional Iranian languages Northern Kurdish, Laki, and Lori. Azarbaijani Turkic, originally limited to settlements in the northern districts, has gained ground over the past centuries as well.

Despite extensive literature on the languages of Gilan, the province still lacks a comprehensive representation of its linguistic diversity, inclusive of all mother tongues and heritage languages, regardless of their duration in the region, population size, or degree of shift toward Persian. Initial representations of the language situation in Gilan came about through maps of ethnicity, which is commonly used as a proxy – albeit imperfect – for linguistic identity. Important ethnic maps were those of Bruk and Apenchenko (1964), the CIA (1982), and Orywal et al. (1990). Bazin et al. (1982) produced the first and only language map of Gilan Province in particular, but it shows language areas in a very general way. Behnstedt (1990), Izady (2006-2024), Asher (2007), and Hourcade (2011) show the languages of Gilan in the context of Iran as a whole, but are likewise lacking in detail.

In this paper, I present the results of research carried out on language distribution in Gilan Province as part of the *Atlas of the Languages of Iran* (ALI) research programme (Anonby et al., 2015-2024), with the goal of providing a fresh and coherent picture of language situation in this province. Between 2018 and 2022, I conducted a province-wide investigation on the languages spoken as a mother tongue in each of Gilan's 52 cities and 2500 villages (Iran Statistics Center, 2016). My work included consulting the existing literature, contact with local authorities and highly mobile residents, such as teachers and local tour guides, and interviews with community members. This resulted in the creation of the first detailed, interactive language distribution maps of the province to the level of each settlement (see Figures below).



Map of all languages in Gilan Province, showing the main language spoken as a mother tongue in each community (Poshtvan, Anonby, et al., 2022)



Map of heritage languages in Gilan Province (Poshtvan, Anonby, et al., 2022)

The results of this investigation reveal that over the last five decades, Persian has increasingly replaced native languages, becoming the dominant mother tongue in most areas of the province. It also highlights the linguistic complexity of the southern region. Rudbar District alone appears to be as linguistically diverse as the rest of the province, with a continuum of hitherto undocumented Tatoid varieties between the city of Rudbar in the west and the Taleqani language area beyond the south-eastern border of Gilan (cf. Borjjan, 2021; Stilo, 2018).

Moving forward, the analysis of linguistic data collected from 58 locations in the province so far, including 27 locations in Rudbar District, will shed further light on the characteristics of Gilan's languages and their relationships with one another.

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## Reconsidering the problem of the nominative singular masculine of the active present participle in Young Avestan

LUKA REPANŠEK

As is well known, there is a general mismatch between the shape of the synchronically productive nominative singular masculine of the active *nt*-participle in Old and Young Avestan. Schindler's work on the problem of YAv.  $-\bar{o}$  and  $-q \sim -\bar{e}$  sought to derive both endings from their respective etymological sources by way of regular sound change, namely  $-\bar{o} < *ah < *as$  and  $-q \sim -\bar{e} < *-\tilde{a}h < *anh < *ans$  (Schindler 1982: 193-195, 199, cf. de Vaan 2003: 390–392).

Both thematic and athematic OAv.  $-qs < *-\tilde{a}s < *a(-)ns < PIr. *a(-)nt^s < PIr. *a(-)nts < PIE *o-nt-s \sim *ént-s$  clearly show, however, that the Proto-Iranian product of the inherited Proto-Indo-Iranian sequence  $*ts$  (i.e., an affricate  $*t^s$ ) resulted in Common Iranian  $*s$  only after the Common Iranian change of  $*s$  to  $*h$  (the same goes for the Nsg. m. of immobile *nt*-participles, cf. OAv. *stauuas* < PIE  $*stéu-nt-s$ ), but early enough to be involved in the desegmentation process of the preceding nasal in a  $*VN\Phi\#$  sequence. This is further supported by the shape of the Nsg. of  $-\bar{a}t$ -stems (e.g. *haruuatās* <  $*harwatāt^s < *sarwa-tāt-s < PIE *solyo-téH_2-t-s$ ), the Nsg. of the decades (e.g. *visqs* <  $*witsant^s < PIE *H_1yi-H_1k'ém-t-s$ ), the Nsg. m. of *want*-stems (e.g. *cuuqs* <  $>PIE *k^u iH_1-uent-s$ ), and the Nsg. of *t*-stems (e.g.  $^{\circ}xšnus < *ksnú-t-s$ ). To make a reverse chronology work (i.e., 1.  $*t^s > *s, *d^f > *z / \_$ ; 2.  $*s > *h$ ; 3.  $aN\Phi\# > \tilde{a}\Phi\#$ ) one is forced to assume (as per Schindler and de Vaan, *loc. cit.*) that the entirety of the cases with an auslauting *s* go back to forms with a restored dental.

Proof for this is normally sought in Av. *napā* (vs. Ved. *nápāt* <  $*nápāts < PIE *nép-ot-s$ , but this piece of evidence is in fact completely irrelevant, given that PIE  $*nép-ot-s$  resulted in  $*nép-ōs$  already in Proto-Indo-European itself ( $*-ot-s > *oss > *os \rightarrow -ōs$  with analogical lengthening based on the Nsg. of animate holodynamic resonant stems), so that Av. *napā* simply *directly* reflects its etymological source (while Vedic restores the dental from the accusative  $*náp-āt-am$ ) and as such proves nothing about the outcome of  $*-Vts$  sequences in Iranian.

Given that cases like *cuuqs* and  $\beta\bar{a}uuqs < PIE *k^u iH_1-uent-s, *t^u éH_1-uent-s$  represent the endings of an altogether moribund and unproductive category, while  $-uuā$  is typical of productive formations, it is more than clear that it must surely be  $-uuqs$  that goes directly back to PIE  $*-uant-s$ , while  $-uuā$  represents an innovation (cf. Jamison 1991: 99–100). If, then, *cuuqs* and  $\beta\bar{a}uuqs$  are the regular reflexes of  $*-uant-s$ , so must also be  $-qs < *ant-s, -as < *at-s, -ās < *āt-s$  and  $-s < *t-s$ . The relative chronology should therefore rather be set up as 1.  $*s > *h$ ; 2.  $*t^s > *s, *d^f > *z / \_$ ; 3.  $aN\Phi\# > \tilde{a}\Phi\#$ .

It is obvious that YAv.  $-\bar{o}$ , which is by far the most common variant of the Nsg. m. ending of originally mobile and immobile *nt*-stems, goes back to synchronic generalisation of the immobile active participle ending, i.e.  $*-at-s$ , which was inherited in “Narten”-presents, in sigmatic aorists, reduplicated presents, and the intensive (the transference was probably induced by the combined effect of “Narten”-presents and the structural comparability of a participle like  $*dad-as$  with  $*bar-qs$ , so that the latter  $\rightarrow *bar-as$ ). The aberrant Young Avestan outcome  $-\bar{o}$  itself can be most straightforwardly explained as a retrograde form based on the synchronic reanalysis of the inherited sequence  $*-as < *at^s < *at-s$  (which possessed an identical reflex in front of sandhi-inducing clitics) as a sandhi form of  $*-\bar{o} \sim *as^{\circ}$ , the analogical proportion at work being  $-as^{\circ} : -\bar{o} = -as : x \Rightarrow -\bar{o}$ .

This would have exerted enough pressure on the parallel ending  $*-\tilde{a}s$  to undergo an analogous response via  $-as^o : -\bar{o} = -\tilde{a}s : x \Rightarrow -\tilde{a}$ .

The process was obviously early enough for the new  $*-\tilde{a}$  to undergo denasalisation to  $*-\bar{a}$  (as shown by  $mr\bar{u} < *mruw\bar{o} < *mruH\tilde{a} < \text{PIE } *mluH_2\text{-}\acute{e}nt\text{-}s$  (but avoided/restored in cases like  $apa\text{-}\acute{s}auuq < *k^u\check{i}eu\text{-}o\text{-}nt\text{-}s$ , since  $*-\acute{s}aw\bar{o} > **-\acute{s}awu > **-\acute{s}aw > **-\acute{s}uu\bar{o}$  (if early enough) or  $**-\acute{s}ao$  vel sim.).

As far as the problematic Nsg. m. ending of the Yav. adjective *maza* ‘big’ is concerned, there are three possibilities:

- a)  $*maz\text{-}aH\text{-}ant\text{-}s > *mazaH\tilde{a}s > *maz\bar{a}s$  (if we are correct in assuming that  $*aH\tilde{a} > *a\text{-}\tilde{a} > \bar{a}$  (see Schindler 1982: 194)  $\rightarrow *maz\bar{a}$  via pressure exerted by the new situation in  $b\acute{a}r^oz\bar{o} \leftarrow b\acute{a}r^ozas$ , which, after all, was the probable source of the contamination of this laryngeal stem with the *nt*-participle,
- b)  $*maz\text{-}aH\text{-}at\text{-}s$  (if one reckons with a PIE starting point  $*m\acute{e}g'\text{-}oH_2\text{-}\eta t\text{-}s$  and assumes later analogy to  $b\eta h\acute{a}nt\text{-}$  in Vedic *mahānt-*)  $> *mazaHas > *maz\bar{a}s \rightarrow *maz\bar{a}$ , again by analogy with  $b\acute{a}r^oz\bar{o}$ ,
- c)  $*maz\text{-}aH\text{-}s$ , i.e. the Nsg. m. of the old laryngeal stem  $*m\acute{e}g'\text{-}oH_2\text{-}s$ , in this case with the resulting  $*maz\bar{a}h$  synchronically corrected on the basis of the new *nt*-strong stem  $*maz\bar{a}nt\text{-} < *mazaHant\text{-}$ , so that  $*maz\bar{a}h \rightarrow *maz\bar{a}$ .

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## The Use of the Optative for Evidentiality in Bactrian Language

ABBAS RIAHI

There are two main categories of modality in a language: propositional modality and event modality. The former concerns the speaker's attitude toward the truth-value or factual status of the proposition, while the latter concerns events that have not taken place but are merely potential. Evidential modality and epistemic modality are sub-categories of propositional modality. With epistemic modality, speakers express their judgments about the factual status of the proposition, whereas, with evidential modality, they indicate the evidence they have for its factual status. Among evidential categories, reported and sensory can be considered umbrella terms for all different types.

In the Bactrian documents we have so far, there are a fair number of examples that show a system of evidentiality by employing different moods in the utterance. A significant portion of the Bactrian corpus consists of letters. Consequently, there is a natural abundance of reported statements formulated within different structures. This situation provides a good opportunity to study the characteristics of such utterances, which is what I did for this presentation. According to my analysis, Bactrian has a defined system to represent reported evidentiality employing the optative forms. Many instances of the optative in Bactrian are utilized to specify the source of information, primarily evidentiality (besides other uses of the optative in Bactrian). In this usage, the optative verb indicates that the following statement is reported, hearsay, taken by impression or inference, assumed, general knowledge, etc. This particular usage is the most common among the functions of the optative in Bactrian.

Most instances of the optative used for evidentiality are found within quotations. These quotations are typically introduced by an (often past) form of one of these verbs: *ναγαυ-* ‘to hear, listen’, *νιβισ-* ‘to write, describe, state’ or *πιδοοαυ-* ‘to appeal’. The following passage from the letter **ed** can exemplify this usage, **ed5-7**:

<b>αβα=μαγο</b> prep. encl. pron. “to, for, 1sg. “me” in, etc.”	<b>πιδοοαυ-αδο</b> vb. 3sg. pret. “to request, entreat, appeal to”	<b>κοοαδο=ιηιο</b> adv. encl. pron. “where” 3sg. “him, to him, it”	<b>φαρο</b> prep. “to, for, etc.”
<b>αγγαδοσπαλο</b> m. PN. “Angad-spal”	<b>ζινο</b> noun, sg. “woman”	<b>πιδο</b> prep. “in, at, for; to”	<b>οουαγο</b> noun, sg. “price, payment”
‘(He) appealed to me, (saying) that he had <b>given</b> a woman to Angad-spal for a price’			

In this system, the optative verb, representing the indicative verb of the original utterance, is indifferent to the degree of reported statement but not to the verb tense in the original utterance. This means that the verb is chosen and used regardless of the difference between second-hand information and third-hand information, while the tense plays a role. The next sentence from document **cm** exemplifies the use of the present optative, **cm6-7**:

<b>ιθαο</b> adv. “thus, so”	<b>χοαν-δο</b> vb. 3sg. pret. “to state, say, claim”	<b>κοαδ=ανο</b> adv. hypothetical “where” particle	<b>ροβιγο</b> adj. or noun “(inhabitant) of Rob”
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**ασπο**  
noun “horse”

**πιδο**  
prep. “in, at, for; to”

**γαλιγο**  
noun “theft”

**οηλ-ινδηιο**  
vb. 3pl. pres. opt. “to  
lead, take, bring;  
exert”

‘(You to me) said thus that the men of Rob are **taking** (away) the horses by theft.’

The consistency in this way of using the optative show that it is a defined system. Therefore, for the very few cases that utilize another modal form instead of the optative, another explanation should be established. In general, there are two examples (or three, depending on how one analyzes the sentences) that need to be explained because of the usage of non-optative forms. In one case, **ci4-6**, the 3rd person singular past indicative form *ασταδο* (to be) is attested (with an optative in the other clause). This clause talks about a part of the information that is known outside of the source of the whole statement, which is another letter here. The other is a 3rd person plural past indicative *ζιδο* (to strike) attested in the letter **ba** (written by a high-ranked lady) within a chain of clauses with optative verbs (**ba5-7**). The use of this structure must relate to the concepts of ‘inference’ and ‘confidence,’ the former dealing with the strength of the conclusion according to available and observable facts and the latter dealing with the speaker’s commitment and confidence in what she is saying. However, this would need to be addressed more comprehensively in another presentation. The important point is that despite the existence of some limited examples that might appear contradictory to the hypothesis and can seem exceptional, a defined system to represent reported evidentiality is recognizable in the language and should be considered when understanding and translating Bactrian texts, as well as in future grammars. Applying the results of this analysis, one can also determine how some ambiguous, problematic, or misinterpreted parts of the existing translations can be addressed.

#### **Keywords:**

Bactrian, Modality, Optative, Evidentiality, Reported, Sensory, Hearsay

#### **Resources**

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# Alignment shift in Bartangi

ALEKSANDR SERGIENKO

## 1. Introduction

This paper is dedicated to the morphosyntactic alignment of past tense clauses in Bartangi (Pamir > Iranian, Tajikistan). According to earlier descriptions (Payne 1980, Karamkhudoev 1973), the alignment is nominative-accusative in the present tense, with the subject invariably in the direct case, and the direct object marked by *az*:

- 1) *āz az tā zān-um.*  
 I.NOM DOBJ you.OBL kill.NPST-1SG  
 ‘I will kill you’ (Sokolova 1960)

However, in the past, perfect and pluperfect tenses transitive subjects can have either direct or oblique case, (2).

- 2) *Mun=um /Āz=um čöd wirōxt*  
 I.OBL=1SG / I.NOM=1SG house build.PST  
 ‘I built a house’ (Karamkhudoev 1973)

Compare this with a past intransitive clause, where only nominative subjects are possible:

- 3) *Yā mot sat, dond-jat na-yat*  
 3SG.NOM tired become.PST.F so-for NEG-come.PST  
 ‘She got tired, so she did not come’ (Karamkhudoev 1973)

Thus, the data from the XX century shows variation between nominative and tripartite alignment in Bartangi past tenses. This pattern is only attested with personal and demonstrative pronouns, as nouns do not distinguish between direct and oblique forms. The following table shows pronouns having distinct nominative and oblique forms:

Table 1: Oblique and nominative forms of pronouns

	1 SG	2 SG	3 SG .M	3 SG .F	3 PL
NOM	<i>āz</i>	<i>tu</i>	<i>yā</i>	<i>yā</i>	<i>wāδ</i>
OBL	<i>mun</i>	<i>tā</i>	<i>wī</i>	<i>um</i>	<i>uf</i>

## 2. Novel data

Data from a 2023 field trip to Basid show a different alignment pattern. Examples with oblique subjects were almost entirely unacceptable:

- 4) *āz=um /??mun=um az tā wīnt.*  
 I.NOM=1SG/ I.OBL=1SG DOBJ you.OBL SEE. PST  
 ‘I saw you’ own data

One more result is an unexpected asymmetry in person. Some pronouns preserved the ergative function of their oblique form better than others: the forms *mun* (1SG) and *uf* (3PL) were marginally accepted, while other oblique forms *tā* (2SG) and *wī* (3SG) were completely unacceptable.

Finally, there was a contrast between two varieties of Bartangi. In the larger village of Basid none of the oblique subjects were accepted, meanwhile in the more remote village of Bardara ergative forms were not only accepted, but also appeared spontaneously in the spoken narratives that I recorded.

### **3. Discussion**

Most research on alignment change focuses on Western Iranian languages (Haig 2008), while Pamir languages are rarely mentioned (Payne 1980). The talk will discuss functional motivations for the shift (Arkadiev 2009) as well as possible formal approaches.

#### **Glosses:**

1 - first person, 2 - second person, 3 - third person, ACC - accusative case, DOBJ - direct object, F - feminine, M - masculine, NOM - nominative case, NPST - non-past tense, OBL - oblique case, PST - past tense, SG - singular

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## Copular Constructions: Evidence from Negation in Baxtiari

ATEFE SHAHBAZI

**Introduction:** Baxtiari, a Southwest Iranian language with an SOV word order, employs **two distinct morphosyntactic mechanisms for negation: Regular Negation (henceforth RN) and Copular Negation (henceforth CN)**. Similar to other Iranian languages, RN in Baxtiari involves prefixing a negative marker to finite verbs or auxiliaries. Evidence that *næ-*, the RN negation, is prefixed to the verb comes from the observation that no syntactic element (e.g., an adverb or a PP) can intervene between *næ-* and the final verb (1-b).

- (1) a. mo    čas    **næ**-xærd-om.                      b. \* mo    čas    **næ**    xeili    xærd-om.  
I       lunch NEG-eat.PST-1.SG                      I       lunch NEG    enough eat.PST-1.SG  
'I didn't eat lunch.'                                      'I didn't eat lunch enough.'

By contrast, CN, although homophonous with the RN *næ-*, **precedes the predicates before the copular verb**—whether NP (2-a), AP (2-b), or PP (2-c)—but never to the verb itself. Notably, unlike RN, **CN can be separated from the predicate by adverbs** like *hæmiše* 'always' (2-d), indicating its status as a fully independent word.

- (2) a. uno    **næ**    moælem bid-en.                      c. **næ**    va    to    bid-om.  
they NEG teacher be.PST-3.PL                      NEG with you be.PST-1.SG  
'I didn't eat lunch.'                                      'I was not with you.'  
b. hæva    **næ**    xub-Ø-e.                                      d. hæva    **næ**    hæmiše xub bi-Ø.  
weather NEG good-be.PRS-3.SG                      weather NEG always good be.PST-3.SG  
'The weather is not good.'                                      'The weather is not always good.'

**Questions:** Given the differences observed in (1)-(2) and the exclusive appearance of CN in copular sentences, some questions arise: How does the difference in syntactic structure—namely, finite clauses versus copula constructions—account for the distinct behavior in terms of negation? More specifically, why is it forbidden to place elements between the finite verb and the negation in RN (as in (1-b)), but not between the copular verb and the negation in CN (as in (2))?

**CN & copular structures:** CN's exclusive appearance in copular sentences suggests a connection to the structure of these clauses. To understand the differences in (1)-(2), it is crucial to explore the structural differences between finite and copular clauses. One relevant analysis of copular is the *Predication* analysis (Svenonius 2002; Adger and Ramchand 2003), which builds on Bowers (1993, 2001). They propose a functional head (Pr) that takes the lexical predicate as its complement, with the subject positioned in the specifier (3). Similarly, Den Dikken (2006), argues that the complements of copular verbs are small clauses, also structurally asymmetric, consisting of a functional head with a specifier (subject) and a complement (predicate).

- (3) [TP is [<sub>PrP</sub> SUBJECT [<sub>Pr'</sub> Pr [<sub>AP/NP/PP</sub> PREDICATE]]]]

Previous analyses emphasize an asymmetry between the subject and predicate in copular clauses. However, I will revive an older proposal by Kreps (1995) and propose a bi-clausal structure for copular sentences, where an embedded clause contains a null T and a null V and the copular verb BE shows up in the higher clause. This bi-clausal analysis preserves the asymmetry between the subject and predicate as emphasized in previous accounts.

- (4) [TP NP<sub>i</sub> [<sub>T'</sub> T [<sub>VP</sub> V<sub>BE</sub> [<sub>TP0</sub> <NP<sub>i</sub>> [<sub>T'0</sub> T<sub>0</sub> [<sub>VP0</sub> V<sub>0</sub> PREDICATE]]]]]]

**Copular Clauses: evidence from CN:** In accordance with the Negation Parameter (Ouhalla 1990; Zanuttini 1997 and Zeijlstra 2004), I take the Neg head to be immediately selecting the T head, with no intervening elements between them. Therefore, unlike Kreps' analysis, I

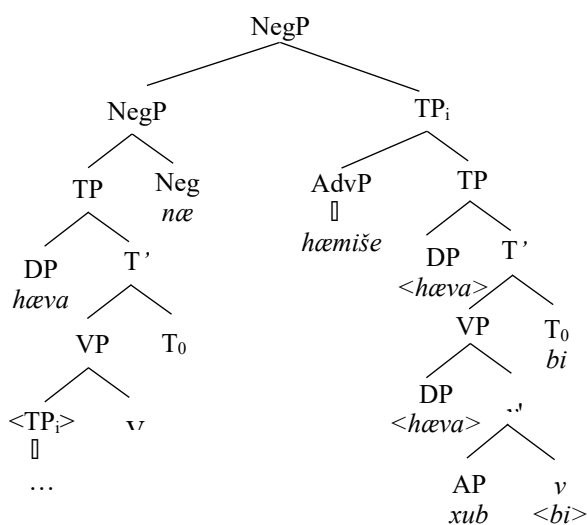
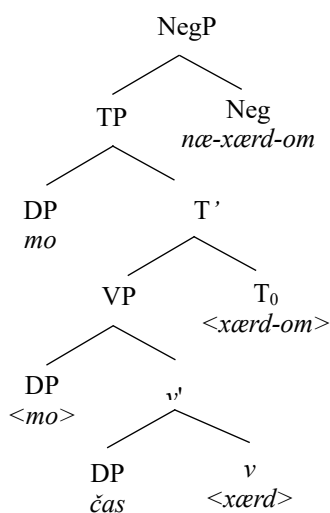
propose that the higher TP contains null T and null V heads, with NegP appearing above the higher TP to ensure adjacency to the null T head and maintain alignment with other finite clauses including RN as a high negation positioned above TP. Additionally, I propose that the copular verb is in the lower TP, where it can form a complex predicate with its complement. I take this configuration as the basic structure of copular clauses and will explain the placement of elements between negation and the copular verb in Baxtiari CN in next section.

(5) [<sub>NegP</sub> Neg [<sub>TP</sub> NP<sub>i</sub> [<sub>T0</sub> T<sub>0</sub> [<sub>VP0</sub> V<sub>0</sub> [<sub>TP</sub> <NP<sub>i</sub>> [<sub>T'</sub> T [<sub>VP</sub> V<sub>BE</sub> PREDICATE]]]]]]]]]]

**Applying the proposal: Placement of CN vs. RN:** Revisiting the minimal pairs in (1) and (2), RN is positioned above TP (6) in finite clauses. In finite simple clauses, the finite verb (here, *xærd* 'eat') first merges with its complement (*čas* 'lunch'), and projects upward. The subject, initially merged in the specifier of VP, then moves to the specifier of TP once T is introduced. NegP, as a head-final projection, merges above TP, providing the ultimate landing site for the complex formed by V and T after the verb raises to T. Copular clauses, however, have a bi-clausal structure (7). In the lower TP, the verb BE (*bi*) merges with the predicate (*xub* 'good'), forming a complex predicate. The subject (*hæva* 'weather') initially appears in the specifier of this lower VP and then raises to the specifier of TP as the lower T merges. The higher adverbial *hæmiše* 'always', then adjoins to the TP, allowing the lower TP to project. This lower TP is the clausal complement of a null V, which is itself a complement to a null T. As the structure projects upward, the higher TP allows the subject to raise in its specifier. NegP merges above this higher TP, creating adjacency between Neg head and the null T. Finally, the clausal complement, including the complex predicate, extraposes to the right of NegP, allowing adverbs and the predicate to intervene between negation and the copular verb.

(6) *mo čas næ-xærd-om.*

(7) *hæva næ hæmiše xub bi.*



**Conclusion:** This abstract investigates the placement of CN before the predicates in Baxtiari copular sentences, contrasting it with RN, which prefixes to the verb. The findings support a bi-clausal approach to copular structures, where the main clause contains a null T and a null V. Taking this approach, negation consistently attaches to TP in both finite and copular clauses, with CN specifically attaching to a null T in the higher TP. The extraposition of the lower TP to the right of the NegP result in the correct word order, allowing syntactic elements to intervene between negation and copular verb.

**Selected references:** Kreps, C. 1995. Another Look at Small Clauses. UCL Working Papers in Linguistics, 6: 149–177. Bowers, J. 1993. The syntax of predication. Linguistic Inquiry 24:591–656.

## Mechanisms of larynx and vocal cords work in Persian speech production

LIUBOV SILANTEVA

In recent years, considerable material has been accumulated in the field of experimental studies of Iranian languages, enabling us to make new generalizations regarding the acoustic characteristics of word stress as part of the problem of speech recognition.

In modern linguistics, the mechanisms of articulating sounds by speech organs located at the exit of the vocal tract have been extensively studied, while the examination of the functioning of speech organs situated deeper within the vocal tract (such as larynx and vocal cords) was previously impossible without specialized equipment and has only become available in recent years. Research on the mechanisms of larynx work has been conducted using various methods for about 90 years, with the majority of works focusing on its medical and anatomical aspects rather than linguistic interests.

In contemporary studies of Persian prosody, there is a consensus within all the schools that acoustic word stress is tonal (meaning the main factor is the increase in pitch). However, the connection between laryngeal parameters and word stress in Persian has not been sufficiently explored yet [Ivanov, Silanteva 2023].

In order to determine the relevance between marking a stressed syllable and larynx and vocal cords work during the articulation of Persian speech, an instrumental acoustic-glottographic study was conducted.

The speech flow, in addition to a microphone with an amplifier, was registered using an electroglottograph (EGG). The use of an additional channel of information, the glottogram, significantly improved the accuracy of speech flow segmentation compared to single-channel recordings. The microphone captures the combined acoustic signal of vocal cord vibrations and turbulence in the oral cavity, with noise overlapping harmonics, making it difficult to determine certain parameters. In a two-channel recording, the harmonic component and noise are distinct. The glottograph records laryngeal parameters, which characterize larynx and vocal cords movements.

Persian vowels were analyzed as syllable nuclei in terms of several parameters:

- acoustic parameters: pitch ( $F_0$ ), intensity (I), duration (T);
- derivative integral parameters:  $F_0$ -area, I-area, Volume (V);
- laryngeal parameters: subsonic frequency ( $F_{sub}$ ), vertical larynx position (VLP), open quotient (OQ).

Speakers' gender and vowel openness were also taken into account.

The obtained parameters' absolute values were normalized using standardized scores (z-scores) in order to avoid the influence of individual speech characteristics.

In Fig. 1, the upper part of the figure displays the intonogram, representing the microphone signal (channel 1), while the lower part shows the glottogram as a sawtooth waveform (channel 2). Both the intonogram and the glottogram graphs have a horizontal reference line depicted with blue dashes. When the graphs align with this line, speech organs are at rest.

The glottogram reflects the phases of laryngeal movements in the form of their electrical analog. In normal speech apparatus functioning, the graph exhibits clear periodicity that allows inference about oscillatory motions of the larynx and phases of vocal fold opening and closing. During vocal fold closure, skin resistance decreases, corresponding on the graph to an upward shift of the curve: each peak of the glottogram curve corresponds to one vocal fold closure. Additionally, skin resistance diminishes when the larynx moves upwards. This is reflected on the graph as larger waves in the

sawtooth curve. The upward displacement of the larynx in Fig. 1 is denoted by the parameter VLP, measured from the glottogram's central line and expressed in relative units using the Praat software. Peaks of the upward laryngeal movement waves are indicated by vertical lines above the glottogram. These irregular waves with noticeable jitter correspond to infrasound oscillations of the larynx.

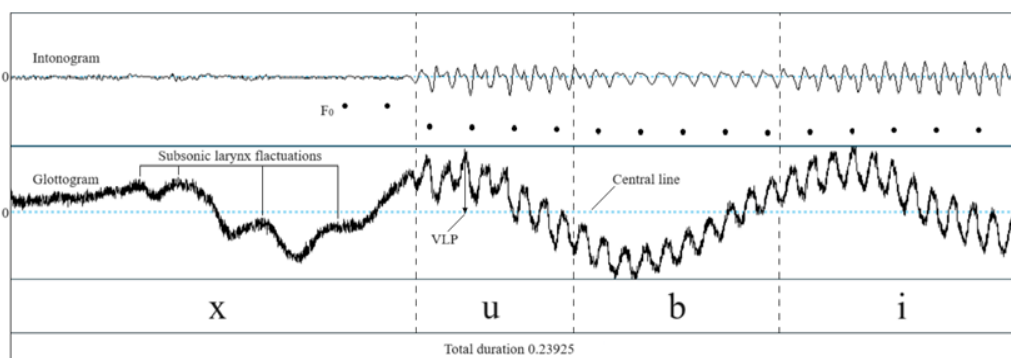


Fig. 1. Segmentation of the word *xubi* 'good' (intonogram;  $F_0$ -graph; glottogram;  $F_{sub}$ ; VLP)

The experiments showed that the marking of a stressed syllable in the Persian language, in addition to the known factor of increasing the frequency of the fundamental tone by 3.44% (0.59 semitones), is produced by reducing the infrasonic frequency of oscillations of the larynx by 3.47% (2.65 semitones). This factor has been called the laryngeal correlate of Persian word stress [Silanteva 2023]. The study suggests that subsonic frequency can be used to recognize stressed syllables in a speech flow in real time. The only inconvenience is the fact that in order to measure the subsonic frequency, a special device and a second channel for recording are required.

A pilot experiment studying the amplitude component of the vertical movement of the larynx showed the irrelevance of the vertical displacement parameter for marking a stressed syllable in Persian speech.

To study the relevance between the work of the larynx and prosody, it was necessary to consider the participation of such a parameter as the open quotient in speech production, which shows the ratio of the time during which the glottis is open to the entire period of vocal cords vibration. This parameter also allows us to judge the intraoral pressure during the articulation of speech segments.

A pilot experiment for measuring the glottal open quotient found a tendency for the average OQ value in a stressed syllable to be lower than in an unstressed one [Silanteva 2024]. When articulating a stressed syllable nucleus, the glottis is closed for a slightly longer time than when articulating an unstressed one. It seems that with an increase in the resistance of the glottis, including the reduction of its openness period, intraoral pressure increases, which can affect speech flow characteristics, e.g., the increase in pitch. The decrease in pressure, on the contrary, is expressed through the increase in the time of glottal openness.

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**Faghat Focus Nistesh ke!**  
**The Persian modal particle *ke* and its diachronic development**

LEAH STERNEFELD

In this presentation, I will argue that the polysemous Persian conjunction and relative pronoun *ke* has developed an additional function as a modal particle in colloquial Persian. Previously, this particle has been interpreted as a focus particle or an emphatic marker (cf. Oroji & Rezaei, 2013; Sadat-Tehrani, 2002). However, I will demonstrate that *ke* should be more accurately classified as a modal particle. Additionally, I will propose a possible grammaticalization path based on pragmatic inference stemming from the conjunction *ke*.

Due to their elusive nature, modal particles (henceforth MPs) were long overlooked in linguistic research but have gained significant attention in recent years. MPs differ from other particles, such as focus or topic markers, in that they express attitudinal views and often reference the common ground. The MP in question, which can appear both in the second position and sentence-finally, exhibits distinct semantic features (cf. Thurmair, 1989), ADVERSITY, (also sometimes referred to as CORRECTION (Döring, 2016)), UNCONTROVERSIALITY (or COMMON GROUND (Grosz, 2016)), and SALIENCE, such that:

*[[ke]](p) = p and the current question q stands in conflict with p which the speaker renders uncontroversial/part of the common ground but is retrieved for purposes of salience (cf. Grosz (2016))*

Consider the following examples: Person A: Shall I make lamb curry for Ali? Person B:

- |   |   |
|---|---|
| (1) Ali <i>ke</i> <i>gusht</i> <i>ne-mi-khore</i> . | (2) Ali <i>ke</i> <i>ma'mulan māhi</i> <i>mi-khor-e</i> |
| Ali <i>ke</i> meat NEG.PRS:eat:3SG                  | Ali <i>ke</i> normally fish PRS:eat:3SG                 |
| (But) Ali doesn't eat meat.                         | (But) Ali normally eats <i>fish</i> .                   |

More than just a focus particle, *ke* here indicates that the speaker assumes the addressee shares the knowledge or finds the statement uncontroversial, though this information might be non-salient or momentarily forgotten. Qualities associated with focus include discourse-unexpectability, contrastiveness, or non-derivability of information (Stevens, 2017). Here the subject "Ali" is neither new/unexpected nor contrastive, and is indeed derivable; thus, it cannot be classified as a focus particle in this context. Notably, *ke* can also appear in a sentence in which other elements are in focus, such as through contrastive stress, or with words like "only" and "even."

- (3) To *ke* *Irān* *na-raft-i*. *Turkiye* *rafti*  
 You *ke* Iran NEG:go:2SG Turkey go:2SG  
 (But) you didn't go to *Iran*, you went to *Turkey*.

In a quest to answer the hitherto unanswered question of how *ke* might have acquired the function of a MP, I will propose a diachronic development from a conjunction through a process of grammaticalisation along the path of (referential function) → (text-connective function) → (discourse function) as suggested by Diewald (2006) based on Traugott (1995). I will argue that this development was especially facilitated by the deictic function of conjunctions as described by Diewald (ibid) and the coordination of Persian subjunctive sentences in the form [A co][B] (cf. Haspelmath (2004)). Consider the following possible bridging context out of which the modal character of *ke* could have developed and note how "that" is part of the main and not the subordinate clause:

- (4) Goft-am        ke    āsheghe        ham        bud-im  
 say.PST.1SG    *ke*    in love. EZF    each other    be.1PL  
 Literal: I said that we were in love with each other.  
 As an MP: I said *ke*, we were in love with each other.

Comparative evidence from MPs in other Indo-Iranian languages such as Pashto *kho*, Urdu *to* and Marathi *tār* (Deo, 2022) supports this analysis. Not only are these particles almost identical in function to *ke* but, are all also used as conjuncts denoting "but" and "then"/ "so" respectively. This strongly suggests similar paths of grammaticalisation triggered perhaps by contact or a common predisposition for such a development.

In summary, this paper will shed light on the following key aspects: First and foremost, I will illustrate that *ke* is not to be construed as a focus marker but rather as a modal particle as substantiated by the examples given here and further restrictions it exhibits. Next, I will put forward a proposed path of grammaticalisation in which the conjunction \k acquires the role of a modal particle through pragmatic inference. As we shall see, there is a pressing need for more extensive research into the behaviours and origins of Indo-Iranian modal particles which show striking similarities and yet differ in key aspects.

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## Aspectual Reanalysis of Copular Forms in Tat

MURAD SULEYMANOV

In the present tense, Tat makes a distinction between the stative identification copula, the dynamic identification copula and the existential copula. The stative copula is expressed by a set of enclitics. The dynamic copula is expressed by *birän* ‘to be, to become’ conjugated in the present. The existential is expressed by the conjugated copular form *häst*. In the negative, there is convergence between the stative and existential copulae.

Abşeron Tat (Balaxanı, Suraxanı)

- |   |  |
|---|--|
| <p>(1) a. <i>doxtur=ü.</i><br/>         doctor=COP:3<br/>         ‘(One) is a doctor.’</p>                          | <p>b. <i>doxtur nist(=ü).</i><br/>         doctor NEG.EXIST(=COP:3)<br/>         ‘(One) is not a doctor.’</p>                  |
| <p>(2) a. <i>doxtur bir-än.</i><br/>         doctor be<sub>2</sub>-PRS:3<br/>         ‘(One) becomes a doctor.’</p> | <p>b. <i>doxtur nä-bir-än.</i><br/>         doctor NEG-be<sub>2</sub>-PRS:3<br/>         ‘(One) does not become a doctor.’</p> |
| <p>(3) a. <i>doxtur häst(=ü).</i><br/>         doctor EXIST(=COP:3)<br/>         ‘There is a doctor.’</p>           | <p>b. <i>doxtur nist(=ü).</i><br/>         doctor NEG.EXIST(=COP:3)<br/>         ‘There is no doctor.’</p>                     |

With the exception of *birän* ‘to be’, all the aforementioned forms are defective. It is the verb *birän* that takes over the missing parts of all copular paradigms. Most Tat varieties thus show complete convergence of the copulae in the past (Suleymanov 2020: 146).

Abşeron Tat (Suraxanı)

- |  |  |
|--|--|
| <p>(4) a. <i>doxtur bü.</i><br/>         doctor be<sub>2</sub>:PST:3<br/>         ‘(One) was a doctor.’<br/>         ‘(One) became a doctor.’<br/>         ‘There was a doctor.’</p> | <p>b. <i>doxtur nä-bü.</i><br/>         doctor NEG-be<sub>2</sub>:PST:3<br/>         ‘(One) was not a doctor.’<br/>         ‘(One) did not become a doctor.’<br/>         ‘There was no doctor.’</p> |
|--|--|

So far, the only Tat variety known to have developed a distinction between the static and dynamic uses of the copula is Judaeo-Tat (Authier 2012: 137), which has the verb *bistore* ‘to become’, presumably derived out of the periphrastic construction *bire* ‘be.PTCP’ + *\*istore* ‘to stand’ (Authier, p.c.). The distinction is likewise characteristic of the past tense, where both ‘to be’ and ‘to become’ possess full conjugations.

Judaeo-Tat (literary, Authier 2012: 117, 97, adapted)

- |   |  |
|---|--|
| <p>(5) <i>mε=š bebe=šmu=re xuno řošir-ε odomi bir-üm.</i><br/>         I=OBL father=POSS:2PL=OBL as rich-ATTR person be<sub>2</sub>:PST-1<br/>         ‘I was also a rich man, like your father.’</p> | <p>(6) <i>omor-ε-omor-ε mε e heči=revoz bistor-um selkor...</i><br/>         come-PTCP-come-PTCP I LOC so=INSTR become<sub>2</sub>:PST-1 village_reporter<br/>         ‘And this is how, little by little, I became a village reporter.’</p> |
|---|--|

Fieldwork carried out recently on the variety spoken in Balaxanı (Abşeron Tat) has uncovered a so-far unattested distinction between the static (including identification and existence) and dynamic uses of the copula, which makes it the only known Muslim variety to do so.

Abşeron Tat (Balaxanı)

- |  |  |
|--|--|
| <p>(7) <i>ävväl çetin birü, hözüm hasand=ü.</i><br/>         first difficult COP:STAT:3 now easy=COP:3<br/>         ‘It was difficult before (but) now it’s easy.’</p> | <p>(8) <i>ənjä azərbayjanli-yä birü.</i><br/>         there Azerbaijani-PL COP:STAT:3<br/>         ‘There were some Azerbaijanis there.’</p> |
|--|--|

- (9) *çi bü?*  
 what COP:DYN:3  
 ‘What happened?’ (lit. ‘What became?’)

In the first (and second) person, the distinction manifests itself on a prosodic level:

- Abşeron Tat (Balaxanı)
- (10) *ä pensiya nâdürmar-ä doxtur bi'rüm.*  
 from retirement NEG.exit<sub>2</sub>-PTCP doctor COP:STAT:1  
 ‘Before I retired, I was a doctor.’
- (11) *häftadihäf-imji sal diplom=mün=ä vâstär-üm,*  
 seventy+seven-ORD year diploma=POSS:1.BS=OBL get<sub>2</sub>:PST-1  
*doxtur 'bir-üm.*  
 doctor COP:DYN-1  
 ‘In 1977, I received my diploma and became a doctor.’

In this presentation, it is argued that Balaxanı Abşeron Tat has developed a system similar to Judaeo-Tat in its function but with notable differences in form.

The third-person form *birü* ‘(s/he) was’ looks structurally very similar to that of verbs derived in the Middle Iranian period out of historical present stems with the suffix *-īd* (realised as *°ir* in modern Tat as a result of rhotacism), e.g. *kāši* ‘(s/he) pulled’ (cf. *kāširān* ‘to pull’).<sup>1</sup> Furthermore, the unusual word-final stress in the first-person form *bi'rüm* ‘(I) was’ (inherited past tense forms, such as *'bir-üm* in (11), are never stressed on the agreement suffix) is indicative of sound fusion. Such realisations are evidence to believe that *bi'rüm* and *birü* go back to forms such as *\*birirüm* and *\*biri* whose hypothetical infinitive form can be reconstructed to *\*birirān* ‘to be’, a static counterpart of *birān* with a full past tense conjugation.

To cite some parallels, Tat varieties are known to add an *°ir* extension to verbs with monosyllabic *r*-final stems, either coexisting with the old form, e.g. Ərüküş–Dağ Quşçu Tat *bir-üm / birir-üm* ‘(I) was, (I) became’, *dir-üm / dirir-üm* ‘(I) saw’, or replacing it completely, e.g. Şirvan Tat *çirir-um* ‘(I) shaved’ (cf. more archaic Qonaqkənd Tat form *çir-üm*).

Balaxanı Abşeron Tat interprets the inherited past paradigm of *birān* as a dynamic copula and invents a new one for the seemingly more widely encountered stative semantics. This is a striking difference from Judaeo-Tat, which does the opposite. The stative vs. dynamic copula distinction may potentially have extended to non-past TAM categories but no such forms have been found so far. If they indeed do not exist, this may point to a paradigmatic parallel with Azeri, a common contact language for Tat, where copular forms show stative vs. dynamic distinction only in the present and past tenses.

### Abbreviations:

ATTR = attributive, BS = bound stem, COP = copula, DYN = dynamic, EXIST = existential, INSTR = instrumental, NEG = negative, OBL = oblique, POSS = possessive, PRS = present, PST = preterite, PTCP = participle, STAT = stative

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<sup>1</sup> Final *ü* in *birü* may be due either to assimilation into the initial labial (the form is often realised as *bürü*) or to analogy with the final vowel of the more archaic *bü*.

## Object marking in Chahar Mahal va Bakhtiari Province, Iran

MORTAZA TAHERI-ARDALI

An enormous body of work has been published on object marking (especially Differential Object Marking) over the past years (see Aissen, 2003; Dalrymple & Nikolaeva, 2011; Hill & Mardale, 2021, among others). In this regard, Standard and Tehrani Persian, as the best-documented Iranian language, has attracted a great deal of attention (see Lazard, 1982; Dabir-Moghaddam, 1992; Karimi, 1996; Paul, 2008; Karimi & Smith, 2018; Jasbi, 2020, to name a few). However, despite the attention given to Persian, object marking has not been adequately addressed in other Iran's languages and dialects (See Bossong 1985). In this paper, the author seeks to provide an account of object marking in Chahar Mahal va Bakhtiari Province (henceforth C&B) as a linguistic area in south-west Iran.

This research was conducted within the framework of the *Atlas of the Languages of Iran* (ALI) research programme (Anonby & Taheri-Ardali, et al., 2015-2024). After the language distribution research phase and preliminary lexical analysis (Anonby et al., 2021), it has become evident that the main languages spoken in C&B are Bakhtiari, Charmahali, and Persian from Southwest Iranian as well as Turkic. In addition to a large portion of the provincial capital Shahr-e Kord, the province's northwest, west, south, and centre regions predominantly speak Bakhtiari as their mother tongue. This province's northeast and eastern regions are home to a mixture of Charmahali, Turkic, and Persian speakers. Moreover, Standard-type Persian is a lingua franca among nearly all speakers.

We used a pilot questionnaire from the ALI project (Anonby, Taheri-Ardali, Haig, et al., 2020) to collect linguistic data from 30 language varieties (11 Bakhtiari, 11 Charmahali, and 8 Turkic varieties) across 26 research sites in C&B. In this research, we aim to illustrate the encoding of object marking in the Iranian languages of C&B as determined by the morphosyntax section of the questionnaire. We have excluded Turkic varieties from the present analysis since it deserves a separate study.

The results indicate that Iranian languages in the province mark most (but not all) objects overtly. Bakhtiari uses =*ne* (=na ~ =en) and =*e* (=a) (i.e., *en ey seyv-ā=ne xor-e* 'He is eating the apples'; *malam=ene did-om* 'I saw the teacher'), and Charmahali speakers mostly use =*rā* (=ā ~ =re ~ =ra) as object markers (*sib-e=rā xord* 'He ate the apple.'; *dar-ā vā kard* 's/he opened the door'). However, as an exception, the self-identified Charmahali speakers of the cities of Hafshejān, Hārūni, and Fath Ābād follow the common markers in Bakhtiari (*dāre sib-ā=ne ixore* 'He is eating the apples.'; *dar=e vāz kerd* 's/he opened the door.'). In other words, these three Charmahali varieties pattern with Bakhtiari with respect to the object marker structure.

In Bakhtiari areas, Chilteh Duderā is the only variety in our data that uses =*a* as the object marker (*siv-al=a xa* 's/he ate the apples.'; *dar-a vāz ke* 's/he opened the door.'). The distinct patterning of this variety has already been attested in the investigation of the definiteness (Taheri-Ardali, 2021). We observed that the language of Chilteh Duderā, in the southernmost part of C&B, is similar to southern Lori than to Bakhtiari (Anonby et al., 2021; for more information on classifications in Lori, see Anonby, 2003). In Charmahali vernaculars, Cham Chang and Sheykh Shabān exhibit different forms of object marking. Cham Chang uses =*y* in addition to =*ā* and =*e*, as in *sib-ā=y mixore* 'He is eating the apples', *darā vā kard* 'He/She opened the door', and *moaleme didameš* 'I saw the teacher'. Sheykh Shabān uses =*a*, =*ra*, and =*ā* for this purpose, as in *sib=a xor-e* 'He is eating the apple' and *un mo'alem-a=ra did-om* 'I saw the teacher'.

The interaction between the object marker and definite marker in Bakhtiari is a clear point of difference from both Charmahali and Persian. In Bakhtiari varieties, -*ke* is a definite marker (Taheri, 2010; Anonby & Asadi, 2014; Taheri-Ardali, 2021). This suffix precedes the object marker in singular and plural nouns (*en ey seyv-eka=ne xore* 'He is eating the apple', *en ey seyv-ā-ka=ne xore* 'He is eating the apples'). In the Charmahali-speaking settlements

including the vernaculars of Hafshejān, Hārūni, and Fath Ābād, the definite marker is apparently absent between the plural marker and the object marker. Similarly, in colloquial Persian, the definite marker *-e* is used only with singular nouns (Paul, 2018, p. 588).

Further investigation of object marking is needed to explore differential object marking, a common phenomenon already reported in many Iranian languages. In the meantime, this study of object marking in Iranian languages beyond Standard and Tehrani Persian will shed light on the nature of this phenomenon in Persian, as it has remained a matter of controversy in Iranian linguistics for years.

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## Defining the Gilaki language area through isoglosses

MAHNAZ TALEBI-DASTENAEI, HAMIDEH POSHTVAN & ERIK ANONBY

Gilan Province, located on the southern shores of the Caspian Sea, is historically home to several West Iranian languages as well as a more recent but growing population of Persian and Turkic speakers. The principal Iranian languages of the province are Gilaki, from the Caspian branch of West Iranian, spoken across the coastal plain and in the mountains to the south; the (Narrow) Northwestern language Taleshi, spoken in the west and north-west of the province; and varieties in the south which have been labelled “Tatoid” (Stilo, 2018; Poshtvan et al., 2022). Despite a long history of research, from Geiger (1898) to Rastorgueva et al. (2012) and Stilo (2001, 2018), the province’s dialectal complexion remains vague due to limitations in the comparability and geographic coverage of existing studies.

As part of a wider initiative in documenting the languages of Gilan Province, we have collected data from 58 locations so far using the *Atlas of the Languages of Iran* (ALI) questionnaire (Anonby, Taheri-Ardali, Haig, et al., 2020). Our initial inquiry and corresponding analysis, which is the focus of the present paper, concern the internal dialectology of Gilaki and the boundaries between Gilaki and its neighbours, Taleshi and Tatoid (Figure 1). As an initial step toward understanding this situation, following the methodology of Labov et al. (2006) and utilizing QGIS mapping software, we are visualizing lexical isoglosses that show significant areal patterning (example map, Figure 2).

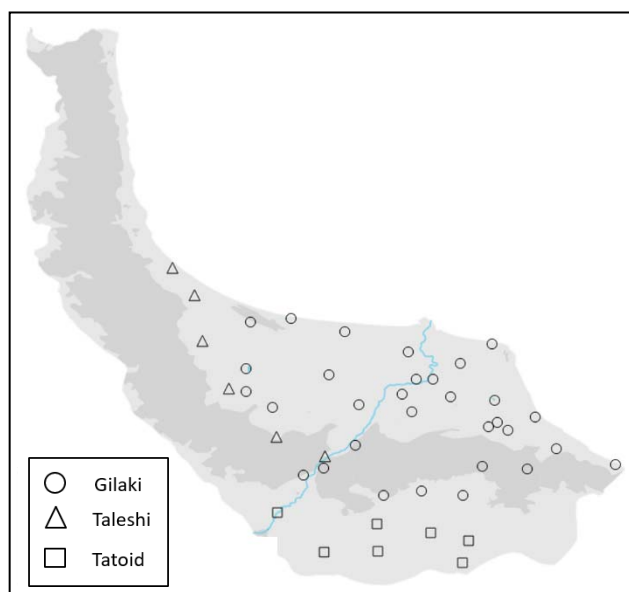


Figure 1. Research locations for the present study

While final conclusions are yet to be determined, our aggregated analysis of 12 salient items shows several patterns, as evident in our draft isogloss map below (Figure 3). First, despite longstanding contact between the two languages, there is a strong bundle of isoglosses separating Gilaki from Taleshi (red oval). In the south, there is a loose network of isoglosses between Gilaki and Tatoid, suggesting a gradual transition between the two groups (yellow oval). Finally, as has long been cited in the literature (Stilo, 2018), there is a dialectal border between Western and Eastern Gilaki (blue oval). Although this border generally follows the Sefid Rud (River), there are clear deviations in which some of the larger cities on the eastern bank pattern with Western dialects.

Beyond the present dataset, as a subsequent step we will expand the geographic scope of this study to examine the relationship between Gilaki and Central Caspian, on the one hand, as well as between Tatoid in Gilan and the Taleqan linguistic area documented by Borjian (2021). Further, we look forward to weighing the findings of the current study through comparison of morphosyntactic isoglosses in data already collected from the same areas.

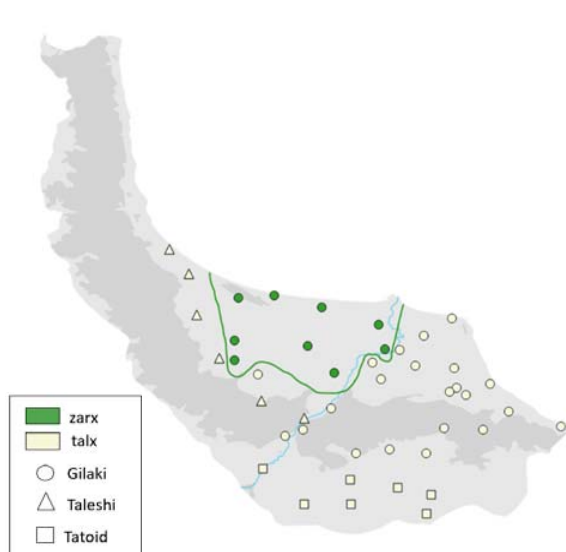


Figure 2. Sample isogloss map: ‘bitter’

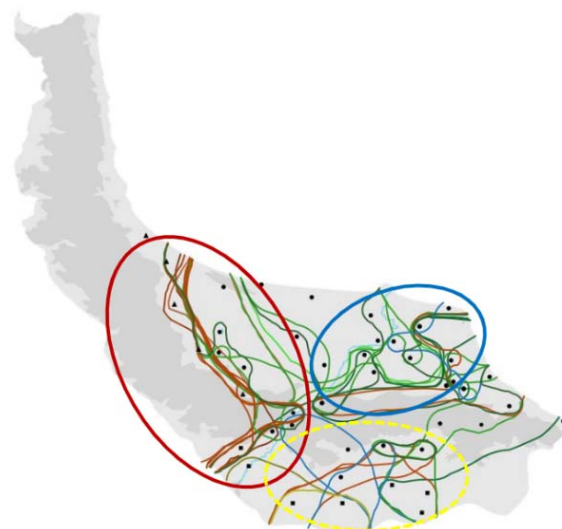


Figure 3. Draft aggregated isogloss map

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Viterbo impressions