

Received 21 April 2020.

Accepted 20 June 2020.

DOI: 10.1344/DIALECTOLOGIA2022.29.7

‘TO BE ABLE TO’ IN MODERN WEST IRANIAN LANGUAGES: INTRODUCING A MODAL CLAUSE

Sepideh KOOHKAN & Roohollah MOFIDI

Tarbiat Modares University and University of Antwerp / Imam Khomeini

International University *

sepideh.koohkan@gmail.com / mofidi@hum.ikiu.ac.ir

Abstract

In investigating modal concept ‘to be able to’ in 104 modern west Iranian varieties, we found four main lexical sources for the verbs meaning ‘to be able to’: i) **xšāya*; ii) *tav-*; iii) *zan*; and iv) *šaw/šiyaw*. Therewith the above sources, in some of the language varieties in Central of Iran, the idiomatic clause *tig= clitic vontemon* meaning ‘someone’s razor cuts’ has the same semantic roles which are predominately on auxiliary verbs meaning ‘to be able to/can’ in other languages. At the same time, in each variety, there is an auxiliary with (almost) the same semantic domain in the field of modality. This paper studies these constructions in one of these language varieties (Kahangi) and shows how the mentioned clause is competing with and winning over an auxiliary meaning ‘can’ (be-f) in this variety.

Keywords

modality, modal clause, Iranian languages, subjectivity, grammaticalization

‘TO BE ABLE TO’ EN LAS LENGUAS MODERNAS DE IRAN: INTRODUCCIÓN DE UNA CLÁUSULA MODAL

Resumen

Al investigar el concepto modal ‘poder’ (‘to be able to’) en 104 variedades lingüísticas modernas del oeste de Irán, se encuentran cuatro fuentes léxicas principales para los verbos que significan ‘poder’: i) **xšāya*; ii) *tav-*; iii) *zan*; y iv) *šaw/šiyaw*. En fuentes anteriores, en algunas de las variedades del idioma del centro de Irán, la cláusula idiomática *tig= clítico vontemon*, que significa ‘los cortes de navaja de alguien’ tiene los mismos papeles semánticos que se encuentran predominantemente en verbos auxiliares que significan ‘poder’ (‘to be able to’/‘can’) en otras lenguas. A su vez, en cada variedad existe un auxiliar con (casi) el mismo dominio semántico en el campo de la modalidad. Este artículo estudia estas construcciones

* Department of linguistics, Tarbiat Modares University, Tehran / Department of English language and linguistics, Imam Khomeini International University, Qazvin.

en una de estas variedades lingüísticas (Kahangi) y muestra cómo la cláusula mencionada compete y se impone a un significado auxiliar ‘can’ (be-f) en esta variedad.

Keywords

modalidad, cláusula modal, lenguas iraníes, subjetividad, gramaticalización

‘TO BE ABLE TO’ EN LES LLENGÜES MODERNES D’IRAN: INTRODUCCIÓ D’UNA CLÀUSULA MODAL

Resum

En investigar el concepto modal ‘poder’ (‘to be able to’) en 104 varietats lingüístiques modernes de l'oest d'Iran, es troben quatre fonts lèxiques principals per als verbs que signifiquen ‘poder’: i) *xšāya; ii) *tav-*; iii) *zan*; i iv) *šaw/šiyaw*. En fonts anteriors, en algunes de les varietats de l'idioma del centre d'Iran, la clàusula idiomàtica *tig= clític vontemon*, que significa ‘els talls de navalla d'algú’ té els mateixos papers semàntics que es troben primordialment en verbs auxiliars que signifiquen ‘poder’ (‘to be able to’/‘can’) en altres llengües. Igualment, en cada varietat existeix un auxiliar amb (gairebé) el mateix domini semàntic en el camp de la modalitat. Aquest article estudia aquestes construccions en una d'aquestes varietats lingüístiques (Kahangi) i mostra com la clàusula esmentada competeix i s'imposa a un significat auxiliar ‘can’ (be-f) en aquesta varietat.

Paraules clau

modalitat, clàusula modal, llengües iranians, subjectivitat, gramaticalització

1. Introduction

We read in Persian literature that *tævanestæn* (‘to be able to/can’)¹ has almost a complete inflection; however, it has often been treated as a modal verb/auxiliary or a verb with defective inflection (Lazard 1957). The main reasons for this view are that *tævanestæn* is not semantically the main predicate, rather it precedes the main predicate; it expresses speaker's attitude towards the following verb; it emerges a clause which cannot be replaced by any other type of complement; and it expresses mental or physical ability along with probability and possibility. However, when it comes to the other Iranian languages and varieties these questions arise what are the language items that express modals meanings referring to ‘can’? Have they evolved from the same origin? Where do they stand in the process of grammaticalization compared to *tævanestæn* in Persian (and many other Iranian languages)?

¹ In this article we use two transcription systems; one APA (American IPA Alphabet) that is used classically for the old languages, the other and IPA (International Phonetic Alphabet) for Modern languages (even though some of them might be highly endangered, such as Kahangi, the variety that we study here).

In our investigation on the modal concept ‘be able to’ in 104 modern west Iranian varieties (some of them independent languages, and some dialects of the same language), from eight main branches (based on Windfuhr’s 2009 categorization), we found out that in most cases the verbs expressing ‘be able to’ are derived from the sources which were primarily main verbs: i) *xšāya in Old Persian, meaning ‘own, be able to’; ii) *tav-/teu-* in Proto Indo-European, meaning ‘swell, inflame, grow up, increase’; iii) *zan*, ‘know, understand’ in Avestan, Parthian, and Old Iranian; and iv) *šaw/šiyaw* meaning ‘go’. All these sources comply with the classical conception of grammaticalization, where a modal verb diachronically develops from a lexical verb (Givon 1979; Traugott & Dasher 2002).

However, scrutinizing these languages, we have faced a form that is not related to any of these sources historically: *tig=clitic vontemon/vundmun/berijan* (literally meaning ‘someone’s razor cuts’) in Kahangi, Kesheyi, Keisari, Kuhpayi, Natanzi, Taraghi, and Tari; all of them spoken in central Iran (Isfahan province). At the same time, these varieties have a less frequent auxiliary with the same semantic roles. This paper aims to study the semantic and morpho-syntactic features of these constructions in one of the language varieties, namely Kahangi /kæhængi/. Kahang /kæhængi/ is a village located in the town of Ardestan, north of Isfahan province, with 511 residents. Referring to the previous paragraphs, we also show where these constructions stand in the process of grammaticalization, comparing with their equivalent modal element in Persian, i.e. *tævanestæn*. For the former purpose, we adopt Narrog’s (2012) analysis of the modality and subjectivity.

In case of most languages, the data is collected through available literature. For over 15 varieties (Balochi, Gerashi, Gilaki, Howrami, Kahangi, Keysari, Kurdish, Khansari, Kuhpayi, Lori, Naeini, Persian, Semnani, Tati, and Vafsi) data are collected using two questionnaires (one of which includes 140 situations and the other 80 sentences to be translated) for extracting modal elements. The questionnaires were administered by face-to-face interviews with one to four speakers of each variety. The accuracy of the target information has been rechecked with at least one informant; where additional information was needed, the informants were asked to send us audio files. In the case of

Kahangi, in addition to the questionnaires, a corpus was produced by recording, transcribing (in IPA) and translating nearly 13 hours of daily conversations among nine native speakers, five females and four males, between the ages 50 to 95, three of whom were illiterate, five with elementary education, and one with BA degree. The principal restriction upon our corpus was the lack of young informants. To overcome this constraint, we have checked our target sentences with five other native speakers, three females and two males, between 35 to 45 years old, two with a BA degree and three with high school level of literacy. The result is sentences with 3048 lexical verbs, 199 modal verbs,² 134 auxiliaries,³ 312 copula (*bojmon* 'to be'), and 314 clitic forms of the copula. The copula and its clitic forms are also used to produce complex predicates (something like *mædʒbur bojmon* 'to be forced' and the clitic forms such as *mædʒbur-u* '(s)he is forced'). In this corpus, the combination of adjectives and nouns with the copula *bojmon* 'to be' is not considered as lexical predicates.⁴ The overall number of different types of verbs then would be 4007 in the corpus.

In what follows, we present the theoretical notions that are necessary for our study, i.e. modality and subjectivity (section 2). In section 3 we introduce lexical sources for Iranian auxiliaries meaning 'can, to be able to'. Within two subsections, we analyze the two target constructions in Kahangi in section 4: first, we focus on the morphosyntactic features of these items, and then we discuss their semantic features. Finally, in section 5 we provide a conclusion.

2. Modality and subjectivity

This section defines analytical notions relevant for our analysis, namely modality and subjectivity. As mentioned above, we adopt Narrog's (2012) view on these two topics, mainly because he considers an unlimited number of subcategories of modality;

² Modal verbs in this corpus are those auxiliaries, mainly equal to 'must, can, and may'.

³ Auxiliaries in this language variety includes the form of *bojmon* 'to be' and *dartemon* 'to have' in the constitution of present and past progressive (in case of *dartemon*), past perfect and past subjunctive (in case of *bojmon*), and present perfect (the clitic form of *bojmon*).

⁴ To consider this combination or not as a complex predicate is a matter of controversy, however we decided to study them under the title of copula.

the privilege that makes the analysis of the category of modality more applicable to non-Germanic languages.

Instead of discussing the nature of subcategories of modality, Narrog prefers to organize them based on the semantic diachronic changes that they make. He distinguishes two dimensions in his model of modality: one of volitive and the other of speech act-oriented. Volitive rests against non-volitive modality to make two ends of a continuum. As the name suggests, subcategories of modality that contain an element of *will*, including *deontic*, *teleological*, *preferential*, *boulomaic* are volitive, and others that contain 'no element of will', including *epistemic*, *evidential*, *participant-inherent*, *circumstantial*, *alethic*, and *existential* are non-volitive.⁵

The second dimension is speech act-oriented which together with event-oriented modality make a continuum. Speech act-oriented calls a situation where a modal marker 'is directly linked to the speech act situation, i.e. the speaker's modal judgment at the time of speech in the given speech situation, her/his attention to the hearer, or to the speech situation, i.e. discourse or text, itself' (Narrog 2012: 49). In this sense, *deontic*, *preferential*, *boulomaic*, *epistemic* and *evidential* modalities, that have the scope over the proposition and are more speaker oriented, are more *speech act-oriented* as well. 'The opposite pole of speech act-orientation is event orientation' when 'a modal marker [...] expresses conditions on a participant of the described event or the event as a whole, in relative independence of the speaker and the present speech situation' (Narrog 2012: 51). *Teleological*, *circumstantial*, *participant-internal*, and *existential* modality that has the scope on the event, not the proposition, make the *event-oriented* dimension.

⁵ The subcategories of modality mentioned here have been defined in Narrog (2012: 8-11). For the sake of accessibility, here is a summary of their definitions: Epistemic refers to someone's world knowledge, typically that of the speaker; deontic marks a proposition as necessary or possible within the framework of a particular system of social rules; teleological is a proposition that marks the necessity or possibility with respect to someone's goals; preferential marks the necessity and possibility with respect to someone's preferences; boulomaic marks the necessity and possibility with respect to someone's volition or intentions; participant-internal (ability, physical necessity) marks the necessity or possibility with respect to someone's dispositions; circumstantial marks a necessity or possibility with respect to certain circumstances; and existential (qualificational) modality shows a state-of-affairs (or situation) is quantified in the sense that the situation is either possibly or necessarily holds.

In Narrog's perspective, semantic change proceeds from less speech act to more speech act-oriented modal meanings and this path is unidirectional; that is no element loses the degree of speech act-orientation to less speech act-oriented or event-oriented.

The second essential notion for our analysis is subjectivity. To Narrog, subjectivity as 'speaker involvement' or 'speaker commitments' stands against objectivity. Since this definition is very broad, he modifies it with two core concepts, *performativity*, and *interpersonal accessibility*. A linguistic form is performative (vs. descriptive) when it 'qualifies a proposition with respect to the current speech situation (including speaker and hearer)'; it is 'the degree to which the judgment expressed in the modal form' and also it 'is the speaker's personal judgment as opposed to communal judgment or communally accessible knowledge' (Narrog 2012: 42). Interpersonal accessibility marks a linguistic form as more subjective if 'in a specific context it expresses a judgment which is based on evidence/and or values that are only accessible to the speaker' and if this judgment 'is accessible or shared by a community of speakers' it is less subjective (Narrog 2012: 43). Accordingly, the more performative a modal item, the more speech act-oriented and consequently the more subjective it is; and vice versa, the more event-oriented, the more objective a language element might be.

3. Expressing 'to be able to/can' in Iranian languages

Iranian languages, the eastern branch of the Indo-European and western group of Indo-Iranian language, has 150 to 200 million native speakers (Windfuhr 2009: 1). Although many classifications for these languages are available and they have some differences in the dialect divisions (cf. Oranskij 1963, Dabirmoghaddam 2014, Rezai Baghbidi 2009 and Windfuhr 2009), they all agree on the overall language groups of this category. This paper adopts Windfuhr's classification among others because it holds typological, ethnical and geographical considerations as well as linguistic ones. In his classification, Modern Iranian languages are divided into two major categories, western and eastern. All languages that are spoken in the country Iran, and some beyond this territory, are among western group. Windfuhr (2009) classifies the western branch of

Iranian languages into eight groups, all with different types of subbranches: 1) Northwest Iranian, Tier one; 2) Southwest Iranian; 3) Perside Groups, Southern Zagros and Fars; 4) Non-Perside Groups, Larestan, and Gulf; 5) Northwest Iranian, Tier two; 6) Easter Iran, Afghanistan, Pakistan; 7) Caspian Dialects, and 8) Semnan Area.

We have studied one or more languages among all these eight groups (and their subbranches) to find out the origins for the (auxiliary) verbs meaning ‘to be able to’. Our research shows that there are four main verbal sources for these auxiliaries:

1. In some language varieties (such as Behdinan in Yazd, Meimei, Tekyei, Zefrei, Sagzavi, Kuhpayei, Kalimi, Keisari, Kahangi, Khurzoghi, Kamandani, Saravi, Gilaki, Deravi type of Tati, Talishi, Galledari, Gerashi, Naeini, Davani, Larestani, and Farrokhi) auxiliary meaning ‘can, to be able to’ is developed from the main verb *šāy*. In Middle Persian the form *šāy-*, *šāyist* meaning ‘be able; be worthy’ (MacKenzie 1971: 79) is used with infinitives (Skjærvø 2010: 241). This form is raised from **xšāy/xšay* in Old Iranian, meaning ‘be able to, can’ (Bartholomae 1961: 551). Along with this verb, in some language varieties (Naeini, Abuzeid Abadi, Azvari, Tatmaji, and Baloch) *šāy* is used as a past participle following the verbs *budæn* ‘to be’ or *kærdæn* ‘to do’ to express the same notions as ‘to be able to, can’.

2. In most of the varieties, this is *tav* that evolves into auxiliaries meaning ‘can, be able to’ (Kalimiyan in Isfahan, Barzaki, Ghohrudi, Vidowji, Lori, Bamposht dialect of Balochi, Sagzi, Shirazi, Firowzabadi, Nahavandi, Savandi, different dialects of Farsi, Ghasrani, Garmabedari, Mazani, Gilaki, Damavandi, Tati, Delvari, Galledari, Koroshi, Laki, Shahmirzadi, Shahrezaei, Ahari, Howrami, Kurdish, Barghani, Shahsavari, Anzali, and Behbahani). In middle Persian this form was *tuwān* meaning ‘might, power’ (MacKenzie 1971: 84) followed by an infinitive form of other verbs (Skjærvø 2010: 241). In Avestan and Old Persian the form *tav* (Kent 1953: 185, Bartholomae 1961: 638) indicated ‘being able’.

3. In Sorkheyi, Aftari, Sowyi, Kajali dialect of Tati, Northern Talyshi, Raji, Vidari, Khansari, Semnani, and Malayeri, our auxiliary was evolved from *zan*. In Avestan *zan* means ‘know, to be aware of’. In Parthian, *žn* was ‘to know, to recognize’ (Hasandoust 2014). Bybee et al. (1994: 190) consider verbs meaning ‘know’ as one of the main sources

of the auxiliaries meaning ‘can, be able to’. However, our data show that not many Iranian languages develop auxiliaries meaning ‘can’ from verbs meaning ‘know’. The verbs meaning ‘know’ usually imply ‘mental ability’ and the transition from mental ability to general ability is easy to understand. Bybee et al. (1994: 192) believe the ‘activities that require mental ability also require some physical ability’. Therefore, ‘know’ as a mental ability changes to ‘can, be able to’ which has a mental basis and physical power.

4. Avestan and Old Persian *šaw/šiyav*, meaning ‘set forth, go’ (Kent 1953: 211; Bartholomae 1961: 1714) either has retained its meaning in some Iranian varieties, or it has undergone a semantic change to mean ‘to become’ (such as *jodæn* in Persian). In Vafsi the same verb proceeded into two different paths: one *sijæn* ‘to go’ and the other *tfuan* ‘to be able to, can’. At first glance, these verbs seem different. However, Table 1 reveals how these verbs are similar:

	tfuan	‘can, to be able to’	sijæn	‘go’
Present	æ-tʃtʃu	I can	æ-tʃtʃu-me	I go
Simple past	bæ-ssuajm	I could	bæ-ssu-me	I went
Past progressive	æ-tʃtʃua	I could	æ-tʃtʃu-me	I was going
Present subjunctive	bæ-sso	(if) I can	bæ-sso-me	(if) I go

Table 1. *sijæn* ‘to go’ and *tfuan* ‘to be able to’ in Vafsi (Koohkan 2019: 199).

The key difference between these two verbs seems to be that the modal one is more grammaticalized and it is less inflected for different forms of person and number. Besides the aforementioned auxiliaries, there is yet another modal form indicating ‘to be able to, can’ in some Central language varieties (including Tekyei, Taraghi, Tari, Kesheyi, Kahangi, Keysari, Kupayi) and that is *tig=clitic vontemon/vundmun/berion*, means ‘someone’s razor cuts’. (1) represents some examples:

(1) a. Tari:

omidvar=un	tig=em	be-vun-æ	kar-i	be-kr-un.
Hopeful=be.1SG.AGR	razor=1SG.POSS	SBJV-cut.PRS-3SG.AGR	task-INDF	SBJV-do.PRS-1SG.AGR

‘I hope I can do something’. (Esmā’ili 2011: 349)

b. Kesheyi:

ema	tig=du	næ-van-æ	in	kar	be-ker-id.
2PL	razor=2PL.POSS	NEG-cut.PRS-3SG.AGR	this	task	SBJV-do.PRS-2PL.AGR

'You cannot do that'. (Esmā'ili 2011: 348)

c. Taraghi:

teG=eʃ	æ-van-æ	hem=eʃ	be-xer-u.
Razor=3SG.	POSS	IPFV-cut.PRS-3SG.AGR	all=3SG
			SBJV-eat.PRS-3SG.AGR

'(s)he can eat all of it'.

d. Kahangi

morG-a	tig=ʃon	ne-vun-u	be-per-en.
Hen-PL	razor=3PL.POSS	NEG-cut.PRS-3SG.AGR	SBJV-fly.PRS-3SG.AGR

'Hens cannot fly'.

e. Natanzi:

u	tig=eʃ	be-ber-i.
3SG.SUBJ	razor=3SG.POSS	SBJV-cut.PRS-3SG.AGR

'(s)he can (do something)'.

This is the form of our concern that will be discussed in the following sections.

4. Discussion and issues

There are some facts about the above language varieties. First, they all have split ergative system in agreement; that means the agent of the past transitive verb is marked with clitics.⁶ Second, the other varieties, with exception of Taraghi, have another modal form which means 'to be able to, can'. Here are some examples:

(2) a. Natanzi

æz	ja=ʃ	tekun	næ-ʃa	xa.
from	place=3SG.POSS	move	NEG-can.PST	eat.SINF

'(s)he couldn't move from his/her place'. (Esmā'ili 2011: 361)

⁶ However, Vafsi is split ergative also in its case system.

b. Kesheyi

ebi tekun=eʃ næ-ʃ-u xa.
 anymore move=3SG NEG-can.PSR-3SG.AGR eat.SINF
 ‘(s)he cannot move from his/her place anymore’. (Esmā’ili 2011: 361)

c. Kupayi

ʃoma=ton næ-ʃa bo jon kar be-kər-i
 2.PL.SUBJ=2PL.AGR NEG-can be.SINF this task SBJV-do-2PL
 ‘You cannot do this task’. (Borjian 2015: 324)

d. Kahangi

morG-e ma be-ʃ-u xant.
 Bird/hen-EZ 1PL INF.PRFX-can.PRS-3SG.AGR sing.SINF
 ‘Our bird can sing’.

These recent auxiliaries are all forms of *šay*, derived from **xšāy/xšay* in Old Iranian, meaning ‘be able to, can’.⁷ To realize how these two groups differ, we analyze them morpho-syntactically and semantically. To have a concentrated and coherent look, we intend to analyze *tig*(=clitic) *vontemon* and the above auxiliary in Kahangi, among the languages in question, and we expect the same analysis to be true for other varieties.

4.1 Morpho-syntactic features

tig=clitic *vontemon* (henceforth *tig vontemon*) is constructed of *tig* ‘razor’ as the subject, a possessive clitic and the transitive verb *vontemon* (to cut). Then the full meaning would be ‘somebody’s razor cuts’. We, therefore, have a full clause consisting of a subject, possessor, and a verb.

In present tense *vontemon* as the main verb, agrees with the subject (*tig*). This is shown with the subject ending *-u* as the suffix; and the possessor of *tig* is marked with clitics (which are =m, =t, =ʃ for first, second, and third-person singular and =mon, =ton, =jon for first, second, and third-person plural respectively). The main predicate may

⁷ A form of the verb *tævanestæn* originating in *tav-*, is also used among younger speakers in Natanzi. Since the education system in these areas is in Persian, and because Natanz is one of the largest areas among the abovementioned varieties with more visitors and more contacts with nearby cities, we believe that the use of *tævanestæn* among young people occurs under Persian influence. As well, Esmā’ili (2011: 66) believes that this use of *tævanestæn* in Natanzi is the result of contact with Persian.

receive both progressive or subjunctive markers as well. Examples in (3) offer these two recent forms:

- (3) a. *tiG=em* *e-von-u*.
 razor=1SG.POSS IPFV-cut.PRS-3SG.AGR
 ‘I can’ (Progressive).
- b. *ege tiG=em* *be-von-u*.
 If razor=1SG.POSS SBJV-cut.PRS-3SG.AGR
 ‘If I can’ (Subjunctive).

As noted above, these language varieties have split ergative systems; therefore, we expect that in past tense they mark the agent (the subject of the transitive verb) with the clitics. Consider, for example, the sentences ‘I eat cheese for breakfast’ and ‘I ate cheese for lunch yesterday’ in respectively in (4a) and (4b):

- (4) a. *(mo)* *so:bone* *penir* *xor-on*.
 (1SG.SUBJ) breakfast cheese eat.PRS-1SG.AGR
 ‘I eat cheese for breakfast’.
- b. *eze* *nahar=m* *penir* *be-xart*.
 Yesterday lunch=1SG.AGR cheese PFV-eat.PST
 ‘I ate cheese for lunch yesterday’.

Consequently, in the case of *tiG vontemon* the following sentences seem reasonable:

- (5) *mama=m* *tiG=eʃ* *be=ʃ* *ne-vont*.
 Mother=1SG.POSS razor=3SG.POSS PFV=3SG.AGR NEG-cut.PST

Although (5) is grammatical, its meaning semantically is not ‘my mother couldn’t’, but has its literal meaning as ‘my mother’s razor didn’t cut’ and it has nothing to do with ‘ability’. It simply means that her razor was not sharp enough and it didn’t cut

(something). Thus, the past form of this construction when it means ‘to be able to, can’ is (6):

- (6) a. *mama=m* *tiG=eʃ* *ne-vont-∅*.
 mother=1SG.POSS razor=3SG.POSS NEG-cut-3SG.AGR
 ‘My mother couldn’t.’
- b. *tiG=em* *vont-∅* *mama=m* *go* *nun=eʃ* *derbest, kumæk=eʃ* *kor-on*.
 Razor=1SG cut.PST-3SG.AGR mother=1SG that bread=3SG make.PST, help=3SG do-1SG
 ‘I could help my mother when she made bread.’

Although *vontemon* ‘to cut’ is a transitive verb, the agent in the past tense (which is *tiG*) is not marked with the third-person singular clitic (=ʃ) when it acts as part of the clause meaning ‘to be able to’, rather it is marked with third-person singular subject ending -∅. The actual actor, who is the possessor of *tiG*, is marked with clitics, the one who has or doesn’t have the ability to do the following action or not. In this sense, this verb does not act the same as other transitive verbs, rather it is more behaving like an intransitive verb. Beyond this context, however, the verb *vontemon* acts like a normal transitive verb; that is, it marks the agent of the past form of the verb with clitics:

- (7) a. *xoje* *deʔr* *tij-a=mon* *be-vont*.
 with sickle thorn-PL=1PL.AGR PFV-cut.PST
 ‘We cut the thorns with sickle.’
- b. *jon* *kard* *bændʒe=m=eʃ* *vont*.
 this knife finger=1SG.POSS=3SG.AGR cut.PST
 ‘This knife cut my finger.’

In these varieties, this feature by itself is not uncommon. Some transitive verbs, in the past tense, cannot support the clitics sequence. As an instance, we expect clitics show both the agent ‘I’ and the object ‘him’ in a sentence like ‘I killed him’; but the result will be ungrammatical (8b-c). On the other hand, the languages of our concern are all pro-drop, which means they can drop the agent/subject independent pronouns because they show it with clitics or endings somewhere before (in case of clitics) or after (in case of

endings) the stem of the verbs. Even inserting an independent pronoun subject/agent (such as *mo* 'I') does not change the result and the structure keeps the agent clitic without mentioning the object clitic (8b). Below you see (8a) which offers the normal form of the sentence 'I killed him' which has no element to mark the object. (8b) highlights this sentence with an independent subject pronoun, and (8c-d) are unsuccessful attempts to use the object clitic. Note that no clitics are permitted to follow the main verb (they only occur anywhere before the stem of the verb). That is why (8d) is ungrammatical:

- (8) a. *be=m* *koʃt*.
 PFV=1SG.AGR kill.PST
 'I killed (him/her).'
- b. *mo* *be=m* *koʃt*.
 1SG.SUBJ PFV=1SG.AGR kill.PST
 'I killed.'
- c. * *b=em=eʃ* *koʃt*.
 PFV=1SG.AGR=3SG.ACC kill.PST
- d. * *b=em* *koʃt=eʃ*.
 PFV=1SG.AGR kill.PST=3SG.ACC

In case of some verbs, it seems if a language is going to choose among different possible clitics (agent, object and possessive) the agent clitic has priority over the others. Although, with this consideration (9a-b) are grammatical, no longer they signify 'ability':

- (9) a. *tiG=em=eʃ* *vont*.
 razor=1SG.POSS=3SG.AGR cut.PST
 'It/(s)he cut my razor'.
- b. *tiG=em* (*dess=em*) *be=eʃ* *vont*.
 Razor=1SG.POSS (hand=1SG.POSS) PFV=3SG.AGR cut.PST
 'My razor cut (my hand)'.

In (9.a) we can think of a situation where something was so heavy or someone was so strong and forceful that could rip my razor apart. In (9b) while the speaker was using his/her razor (as suggested in the questionnaire) to peel something, (s)he cut his/her hand.

The paragraphs above indicate the clause is undergoing the grammaticalization process; the main predicate of the clause, by not obtaining past agent clitic, is behaving more like an intransitive verb rather than a transitive one. Other certain explanations show this form is changing to a more grammaticalized item. One of them is that the speaker doesn't mark progressive or subjunctive in the clause in his/her daily conversation, rather (s)he uses the present indicative form. Moreover, in our corpus, we found evidence that the speakers use a variant of the verb *bojmon* 'to be' (the third person clitic form of this verb which is =u for present and the third person singular *bu* for past tense) instead of *vontemon*; in that case, the literal sense of the clause would be 'my razor is/is not', idiomatically means 'can/cannot'. In (10) you find this element in both negative and possessive forms:

- (10) tiG=et ne=u/ne go jon baGali pak ker-e, emba
 Razor=2SG.POSS NEG=be.3SG.AGR that this bean clean do.PRS-2SG.AGR but
 tiG=et=u go be-xer-e./?
 razor=2SG.POSS=be.3SG.AGR that SBJV-eat.PRS-2SG.AGR
 'You cannot clean these beans but you can eat them?'

Now let's look at the other alternation in Kahangi that expresses 'be able to, can'. *(be)-f-(endings)/(be) (clitics)-fa* (henceforth *bef*) is constructs of *be-* as an inflectional prefix, the stem *-f/fa* (the present and past forms) developed from Old Iranian *xšāy* 'be able to, can'. A subject ending in present tense follows the stem, and the same as any other transitive verb, the agent clitic in past tense precedes the stem (11c). This clitic is not only the agent of this auxiliary, but it is also the agent of the entire sentence. In both past and present forms, the negative marker stands immediately before the auxiliary stem (11a & 11c). When the main predicate of the sentence is a prefixal predicate, *be-* is replaced by the derivational prefix of the main predicate (11b); and when the main predicate is a complex one, *bef* stands before the verbal form of the predicate (as an

instance *qaje be-nef-on ke* ‘I can’t talk’, where *qaje* is ‘speech’ and *ke* is the short infinitive form of ‘do’; see Table 2). The main predicate following *bef* in always in the short infinitive form.⁸

Presenting a table with all the forms mentioned above helps us to have a comprehensive view of this auxiliary. Table 2 introduces different forms of this auxiliary in the first, second and third person singular, in present and past tense, negative form, and also with prefixal and complex main predicates:

Form	First person	Second person	Third person
PRS	be-f-on ‘I can’	be-f-e ‘you can’	be-f-o ‘(s)he can’
PST	be=m fa ‘I could go’	be=t fa ‘you could’	be=f fa ‘(s)he could’
Negative PRS	be-ne-f-on ‘I cannot’	be-ne-f-e ‘you cannot’	be-ne-f-o ‘(s)he cannot’
Negative PST	be=m ne-fa ‘I couldn’t’	be=t ne-fa ‘you couldn’t’	be=f ne-fa ‘(s)he couldn’t’
Pref pred PRS	he f-on nift ‘I can sit’	ver f-e vet ‘you could pick out’	ver f-o essa ‘(s)he could stand’
Pref. pred. PST	vir=em fa gi ‘I can lift’	vir=et fa gi ‘you can lift’	vir=ef fa gi ‘(s)he can lift’
Comp. pred PRS	qaje be-f-on ke ‘I can talk’	tak be-f-i ke ‘you can open’	pus be-f-o ke ‘(s)he can peel’

Table 2. Forms of *bef*-

According to Heine criteria (1993) *bef* is an auxiliary; since it shows a defective inflection, it is not the main predicate of the clause, it is not governed by any other auxiliary (which is why 10d is ungrammatical), and the following main predicate is in non-finite form. Examples in (11) demonstrate this auxiliary in use. (11a) is first-person singular negative form of *bef* in present tense. (11b) shows this auxiliary when accompanying a prefixed verb (verbs which are constructs of a derivational prefix preceding a simple verb). In this situation, the prefix *be-* of *bef* is replaced by the derivational prefix of the main verb (*vir-* in 11b). (11d-e) illustrate the use of another auxiliary before/after *bef* which makes the sentence ungrammatical:

- (11) a. mo Geza fur be-ne-f-on xa.
 I food salty INF.PRFX-NEG-can.PRS-1SG eat.SINF
 ‘I cannot eat salty food.’

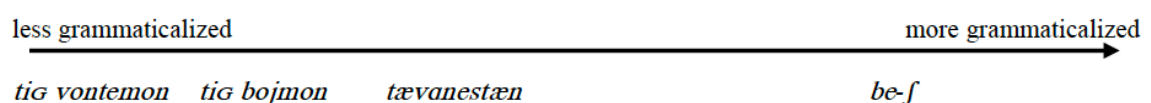
⁸ The infinitive in Iranian languages consists of the verb stem, the past marker, and an optional nominalization morpheme (which only occurs when the infinitive behaves as a noun). Short infinitives too, have the stem and the past marker morphemes, but the past marker is just a morphological element with no syntactic role.

- b. vir=em ʃa gi.
 DER.PRF=1SG.AGR can.PST take.SINF
 'I could pick (something) up.'
- c. mo jon xet b=em ne-ʃa xant.
 I this handwriting INF.PRFX=1SG.AGR NEG-can.PST read.SINF
 'I couldn't read this handwriting.'
- d. *b=em ga ʃa ke.
 INF.PRFX=1SG.AGR must.PST can.PST do.SINF
 * 'I must could do (it).'
- e. *be-gu be-ʃ-on ke.
 INF.PRFX=must.PSR INF.PRFX-can.PRS-1SG.AGR do.SINF
 * 'I must can do (it).'

The controversial issue of this auxiliary is that it has the prefix *be-* before both present and past tense. In Iranian languages *be-* marks either subjunctive or imperative mood before the present stem and the perfective aspect before the past stem. However, regardless of aspect and mood of the clause, *bef* always carries this prefix when the main predicate is a simple verb. The nature of this prefix is not the concern of the present paper (see Modifi 2017 for further discussions on prefix *be@*). What matters is that *bef* has been fixed to represent 'ability' and it is no longer productive.

Hither, when we compare this auxiliary with *tævanestæn* in Persian (and other language varieties in which 'can' is derived from *tav-*), and also with *tig vontemon*, we can say that *bef-* is more grammaticalized than *tævanestæn* and both are more grammaticalized than *tig vontemon* which is still a full clause (even when it is used with the copula *bojmon* 'to be'). (12) shows the level of grammaticalization of these three elements:

(12)



As the above continuum suggests *bef-* is the most grammaticalized item among others, while *tævanestæn* is in the mid-level of grammaticalization. Although *tiG vontemon* has already started the grammaticalization process and has the alternative form *tiG bojmon* even this recent form is still a full clause and it has to pass a long way toward reducing to an auxiliary. We have to note that this is not the only future we can predict for our clause. The other possible scenario is that it continues to live in the same form (until the language itself is not dead), or it will cease to be expressive enough for the concerned notions and will be replaced by another language item.

4.2 Semantic features

From the modality viewpoint *tiG vontemon* receives participant-internal (ability), circumstantial, and deontic. (13a) illustrates participant-internal, (13b) circumstantial, and deontic (formal request) in Kahangi.

- (13) a. atʃ=im tiG=eʃ e-von-u jon seng vir-gir-u.
brother=POSS.1SG razor=POSS.3SG IPFV-cut.PRS-3SG this stone DER.PREFIX-take.PRS-3SG.AGR
'This stone is very heavy, but my brother can pick it up.'
- b. fekr be-ne-kor-on tiG=mon von-u b-ij-em.
Think SBJV-NEG-do.PRS-1SG.AGR razor=POSS.1PL cut.PRS-3SG.AGR SBJV-come.PRS-1PL
'I don't think we can come.'
- c. dada tiG=ton e-vonu jon pyl kart be kart ker-i?
Sister razor=2SG.POSS IPFV-cut.PRS-3SG this money card to card do.PRS-2PL.AGR
'Sister, can you transfer this money?'

Two other usages are also possible in the languages of the world for modals meaning 'can': permission (as a deontic) and existential modality. (14a) is an example of deontic use and (14b) of existential use in English:

- (14) a. Can I pinch a ciggie?—Course you can. (Narrog 2012: 55)
b. Internet postings can lead to lawsuits. (Narrog 2012: 10)

In our corpus, there were 59 uses of *tig vontemon/bojmon*, 56 of which express ability, four of deontic, and four of circumstantial use.⁹ We could not find any example indicating the use of *tig vontemon* for permission or existential modality. We can ask the native speaker to translate the sentences in (14) with any forms of *tig vontemon* but we end up with constructions that sound unnatural or ungrammatical to the speaker. Examples in (15) show different uses of *can* in English beside the above uses. (15a) illustrates an existential modality with no participant (or situational dynamic in Nuyts [in prep]), (15b) offers an existential with animate first argument structure, (15c) shows two interpretations; one deontic and the other circumstantial, and (15d) is an example of permission as a type of deontic.

- (15) a. In this desert, it can snow in winter. (Nuyts [in prep]: 76)
 b. Little Stevie cannot have broken the vase since he was not around (Nuyts [in prep]: 76)
 c. After all he did for us, we cannot fire him without any reason!
 d. Can I sit here?

We asked the informants to translate these sentences in their natural use so that the sentences sound normal to the other speakers. Each time we have checked the responses with other informants. The result is as follows (note that some trivial cultural changes were inevitable):

- (16) a. do jon bijabon-de zemesson bu/momken=u/gabu varf dji bi-j-u.
 in this desert-in winter be.3SG/possible=be.3SG/maybe snow too SBJV-come.PRS-3SG
 'In this desert, it is possible/maybe it snows, too.'

- b. ne-bu go mergem jon goldun be-mærx-e bo.
 NEG-be.3SG that Maryam this vase PFV-break.PST-PTCP.3SG.AGR be. SBJV.PST-3SG
 'It is not possible/it may not be the case that Maryam has broken the vase.'

- c. ne-bu bedun-e delil ky=f ker-em.
 NEG-be.3SG.AGR without-EZ reason out=3SG.ACC do.PRS-1PL.AGR
 'It is not possible we fire him/her without any reason.'

⁹ Note that the sum of the numbers for each use is more than 59, and that is because of the polysemous nature of modal which makes them have more than one reading.

- d. *tiG=mon* *ne-von-u* *bedun-e* *delil* *ky=f* *ker-em.*
 razor=1PL NEG-cut-3SG without-EZ reason out=3SG.ACC do.PRS-1PL.AGR
 'We cannot fire him/her without any reason.'
- e. *hon* *de* *he-f-on* *nift?*
 Here in DER.PREFIX.IPFV-can.PRS-1SG.AGR sit.SINF
 'Can I sit here?'

Our data show that existential use of *can* is expressed with the auxiliary *bu* as an inflected form of the verb *bojmon* 'to be, to become', with modal meaning 'it is possible, may'. This auxiliary may also express circumstantial modality as in (16c). One explanation for the difference between (16c) and (16d) is that in (16c) the speaker sees the situation immoral or based on the situation the speaker is not willing to fire the third party. In (16d), although the speaker is willing to fire him/her, they need reasons for doing that, otherwise, they cannot fire him/her legally. Thus, (16c) is the circumstantial use, since the proposition is not possible with respect to certain circumstances; whereas (16d) is a deontic use that shows the proposition is not possible within a social system framework. Lastly, (16e) denotes permission expressed with the alternative form of modal auxiliary meaning 'can', i.e. *bef*, but not *tiG vontemon*.

The deontic usage (request) is volitive among the above uses of *tiG vontemon* and the other two (circumstantial and participant-internal (ability)) are non-volitive. On the other hand, a request is performative, so this use is speech act-oriented and more subjunctive, while 'ability' use is more event-oriented than the others and therefore less subjunctive. Figure 1 represents the semantic space of *tiG vontemon* based on Narrog (2012). Since both circumstantial and participant-internal are traditionally called 'dynamic' modality (Narrog 2012: 10) you see them together in the same space but at different levels:

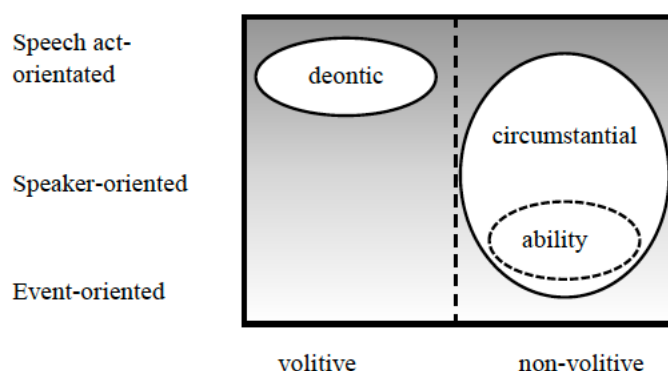


Figure 1. Semantic space of *tiG vontemon*

It has been shown hitherto that syntactically *tiG vontemon* is a clause. Semantically the meaning of this clause is not derived from its parts and it is fixed. This is the description of idioms in the languages (Geeraert et al. 2017: 80). Classically, the idioms are divided according to two characteristics. One is compositionality: an idiom is *compositional* if it is ‘syntactically analyzable and so can undergo syntactic variation’; and it is *non-compositional* if ‘no relations between the idiom’s constituents and the idiom’s meaning can be discerned’. The other is transparency, that is, ‘the extent to which an idiom’s meaning can be inferred from the meanings of its constituents’. Compositional idioms can be either transparent and have ‘one-to-one semantic relations between the idiom’s constituents and components of the idiom’s meaning’, or opaque, that is ‘its meaning cannot be inferred from its constituents’; albeit, non-compositional idioms are always opaque (Glucksberg 2001: 72-74).

To be able to judge our clause more accurately, let us first look at an idiomatic clause in Persian with the same structure and the same meaning. *tiGæ-kæsi boridæn* ‘someone’s razor cuts’ in Persian is a colloquial metonymic idiom that means ‘the strength and ability or the influence of somebody’. The meanings of *tiG* in history of Persian (and we expect in Kahangi also) are ‘razor, knife, and (old use) sword’ (Anvari 2012). (17) offers this idiom in Persian:

- (17) ...æge tiGæ=ʃ be-borr-e ... badʒ hæm mi-gir-e.
 ...if razor=3SG.POSS SUJV-cut.PRS-3SG toll too IPFV-take.PRS-3SG.AGR
 ‘...if his/her razor cuts (she/he can), he takes a toll, too.’ (Anvari 2012: 2016)

Here *tig-e kæsi boridæn* ‘someone’s razor cuts’ is an arbitrary idiom. It is restricted to the choice of the speaker and even the age of the speaker (due to the fact that this idiom is getting old and it is not popular among young people). However, *tig vontemon* has extended its functions in the languages of our concern and entered the speaker’s daily life to express modality. Thus, although both of these clauses are idioms, in Persian it is more compositional and more transparent; while in Kahangi, it is still compositional (since syntactically it is analyzable) but less transparent (because the speaker is not aware of its constituents). In fact, this clause is not an idiom for him/her anymore, rather a grammatical construction to demonstrate ability.

Inferring a new meaning from a language item is possible when the source and the target concepts ‘are either pragmatically or conceptually close to each other’; that means they have a metonymic relation with each other (Narrog 2012: 63). As the example in Persian implies, this expression is a metonymic idiom. In Kahangi (and other aforementioned languages) because of the conceptual relation that the speakers could find between this notion and *ability*, this idiom has been specified for denoting *ability*. It seems iconicity between ‘a sharp razor/knife/sword’ as a concrete notion and ‘ability’ as a less concrete concept, is the semantic motivation to form this idiom. The speaker finds an experience with which the two meanings are matched (Croft 2003: 102). (S)he compares these two *independent* entities and decides that there are sufficient structural similarities between them for the more concrete item to be called a ‘picture’ of the less concrete one (Itkonen 2004: 22). The new meaning starts extending and the speaker prefers it over the old meaning. If the frequency of this interpretation raises sufficiently by repetition, it is generalized to more context and then conventionalized to express ability. At this level, the change is completed and the target meaning needs no special conditions to occur because it is only the target meaning that is left (cf. Heine 2002, Narrog 2012 and Diewald 2002).

Now let us have a look at the semantic features of *beʃ*. In our corpus, this auxiliary is used in 47 sentences. In the field of modality, *beʃ* mostly receives ability (38 out of 47), permission (6 out of 47), and also circumstantial possibility (10 out of 47). Example in

(18a) illustrates circumstantial, (18b) offers permission as a type of deontic modality, and (18c) shows ability as a type of participant-internal:

- (18) a. *vez=ton* *xub=u,* *ʃuma* *be-ʃ-i* *xeri.*
 Situation=2PL.POSS good=be.3SG, 2PL.SUBJ INF.PFX-can.PRS-2PL.AGR buy.SINF
 ‘You are wealthy, you have money, and you can buy (it).’
- b. *dyta* *nun* *he-ʃ-i* *gi?*
 Two bread DER.PRFV.IPFV-can.PRS-2SG take.SINF
 ‘Can you buy two bread?’
- c. *re* *dyr* *be-ne-ʃ-on* *di.*
 Way far INF.PRFV-NEG-can-1SG see.SINF
 ‘I cannot see from a long distance.’

We can fit *beʃ* in Narrog’s proposed domain as in Figure 2:

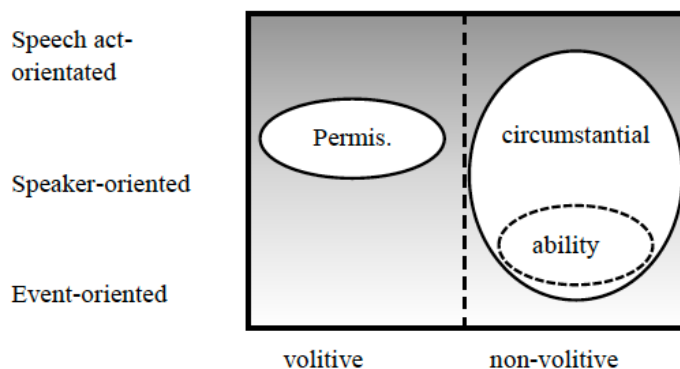


Figure 2. Semantic space of *beʃ*

The main difference that meets the eye is that *beʃ* is used for permission, but *tiG votemon* indicates request. Permission is less performative, less subjunctive and thus less speech act-oriented.

A note is that *beʃ* is not the main language item for permission (this is also clear from the total number of 6 sentences out of 47), rather it is usually *bu* (third-person singular form of *bojmon* ‘to be, to become’, with modal meaning ‘may’) that is used for permission. Besides, in our corpus the use of *beʃ* vs. *tiG votemon* doesn’t show a wide

difference in frequency (47 vs. 58); however, in each daily conversation that we have recorded, the frequency of *tiG votemon* was clearly more than *bef*. The frequency of this auxiliary increased in our corpus mostly because we also added the sentences from the questionnaire (as stated in the introduction) to our data. These sentences directly targeted those language items that signify ‘can’, and the speakers were asked to think of any possible way to produce those sentences. The result was that the first equivalence used by the speakers for each sentence including ‘can’ was *tiG votemon*, and the use of *bef* only appeared when they thought twice or when they were asked whether *bef* could be used in those contexts instead or not. If we exclude these occurrences of *bef* there will remain 24 uses of this auxiliary.

The central function that both *bef* and *tiG votemon* receive is ability. Expressing circumstantial modality is their second function and permission for *bef* and deontic for *tiG votemon* are even more marginal.

‘Languages change all the time’ and grammaticalization is one of the major paths to language change. Although ‘in grammaticalization, there is no need for special trigger’ (Bybee 2015: 246), in a competition of one form to another, languages prefer the more concrete linguistic forms over less concrete and less easily accessible form (Heine & Kuteva 2007: 33). *bef* has proceeded in the grammaticalization path from a lexical verb to an auxiliary. This auxiliary is still in the language in less frequent function. There is no direct diachronic literature available that can lead us to a certain understanding of what happened to *bef* that the language users found it less efficient in expressing ability. Whatever happened, it seems *bef* started bleaching semantically. Probably for the language user it was no longer easy to match the meaning (s)he intended with this form and (s)he needed a more expressive language item. All of these reasons together trigger the emergence of a new construction, which is less grammatical, more concrete, more schematic that ‘fulfills similar functions’; something that ‘tends to associate meaning directly with form’ (Bybee 2015: 238). This choice for language users of Kahangi is *tiG=clitic votemon*, an idiom that was already in the language and was not unfamiliar to the speaker. But somewhere in history, this idiom has been designated semantically for

expressing a range of modal notions in Kahangi. The capacity that *tiG=clitic vontemon* has in expressing types of ability, and associating a *sharp razor* or *a razor that cuts* (because it is sharp) with *being able* for the language user is more concrete than the auxiliary *bef*.

As mentioned in section 4 amongst the target language varieties, in Taraghi *tiG vundemon* is the only way to express the discussed notions. Since the auxiliary *bef* is diachronically older than *tiG vundemon*, we believe it existed once in this language variety, but today it is completely replaced by the clause. We can think of this as one possible future for these elements in the other varieties as well.

5. Conclusion

This article introduces different possible sources for modal items meaning ‘can, to be able to’ in New West Iranian languages. It also introduces the idiomatic clause *tiG=clitic vontemon* ‘someone’s razor cuts’ which is used as the main element of expressing ability (and some other roles in the field of modality) in some varieties of Central languages in Iran. We studied the morphosyntactic and semantic features of this clause and also its competitor auxiliary, *(be)-f- (endings)* which is older but less frequent language item for the same language purposes.

What will happen to *bef* in the future? Two scenarios are possible. One is that it will lose its few remaining roles and it will be replaced with the new clause. This probably has happened in Taraghi. But not all the old language items are doomed to omission; they may remain and keep their marginal roles in the language or they may continue the grammaticalization process and recategorize to a new element, probably an adverb. In fact, this is what happened to *fajæd* in Persian. Today an adverb, *fajæd* was once a full verb derived from the same root as *bef*, i.e. *xšāyā. In Middle Persian the infinitive form *šāyistan* and the stem *šāy-* meant ‘to be able; be worthy’ (Mackenzie 1971: 79). The inflected forms of *šāy-* (such as *faj-æm* (first-person singular), *faj-i* second-person singular), *fajd-Ø* (third-person singular), etc.) have been used in classic New Persian to

mean ‘to be probable, to be possible, to be worthy’ (Mahmoodi Bakhtiyari 2006). Today the only remaining is *faj-æd*, which once referred to third-person singular of this verb, and today it means ‘maybe’.

And about *tig=clitic vontemon*, unless there is no new, less grammatical and stronger competitor, it will be the main element of expressing ability and other related functions in the language. However, it has already started to be grammaticalized. Right now *tig=clitic u/ne-u* ‘somebody’s razor is/is not’ is a ready candidate to replace *tig=clitic vontemon*. Still, based on the evidence, we as the researchers can only predict and express our expectations about the future of a language item; but languages are not one hundred percent predictable and we can never be sure at all that every language item will have the same behavior as what we have observed before.

List of abbreviations

1	first person	2	second person	3	third person
AGR	agreement	ACC	accusative	DER.PREFIX	derivational prefix
EZ	ezafe	INDF	indefinite	INF.PREFIX	inflectional prefix
IPFV	imperfective	NEG	negative	PFV	perfective
PL	plural	POSS	possessive	PRS	present
PST	past	PTCP	participle	SBJV	subjunctive
SUBJ	subject	SINF	short infinitive		

References

- ANVARI, H. (2012) *Sokhan Dictionary* [farhang-e sokhan], Tehran: Sokhan Publishing.
- BARTHOLOMAE, C. (1961) *Altiranisches Wörterbuch*, Berlin: W. De Gruyter.
- BORJIAN, H. (2015) *A Treasury of Iranian Dialects (Isfahan Province 2)*, Tehran: The Academy of Persian Language and Literature.
- BYBEE, J. L., R. PERKINS & W. PAGLIUCA (1994) *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*, Chicago & London: The University of Chicago Press.
- BYBEE, J. L. (2015) *Language Change*, Cambridge: Cambridge University Press.
- CROFT, W. (2003) *Typology and Universals*, Cambridge: Cambridge University Press.
- DABIRMOGHADDAM, M. (2014) *The Typology of Iranian Languages*, Tehran: Samt.

- DI EWALD, G. (2002) "A model for relevant types of contexts in grammaticalization", in I. Wischer & G. Di ewald (eds.), *New Reflections on Grammaticalization*, Amsterdam: Benjamins, 103-120.
- ESMĀ'ILI, M. (2011) *A Treasury of Iranian Dialects (Isfahan Province 1)*, Tehran: Academy of Persian Language and Literature.
- GEERAERT, K., R. H. Baayen & J. Newman (2017) "Understanding idiomatic variation", *Proceedings of the 13th Workshop on Multiword Expressions*, Valencia, Spain: Association for Computational Linguistics, 80-90.
- GIVON, T. (1979) *On understanding grammar*, New York/San Francisco/London: Academic Press.
- GLUCKSBERG, S. (2001) *Understanding Figurative Language: From Metaphors to Idioms*, Oxford & New York: Oxford University Press.
- HASANDOUST, M. (2014) *An Etymological Dictionary of the Persian Language*, Tehran: Academy of Persian Language and Literature.
- HEINE, B. (1993) *Auxiliaries: Cognitive Forces and Grammaticalization*, New York & Oxford: Oxford University Press.
- HEINE, B. (2002) "On the role of context in grammaticalization", in I. Wischer & G. Di ewald (eds.), *New Reflections on Grammaticalization*, Amsterdam/Philadelphia: John Benjamins, 83-101.
- HEINE, B. & T. KUTEVA (2007) *The Genesis of Grammar*, Oxford & New York: Oxford University Press.
- ITKONEN, E. (2004) "Typological explanation and iconicity", *Logos and Language*, V5, I26, 5(1), 21-33.
- KENT, R. G. (1953) *Old Persian: Grammar, Texts, Lexicon*, New Haven, Connecticut: American Oriental Society.
- KOOHKAN, S. (2019) *The Typology of Modality in Modern West Iranian Languages*, PhD thesis, Antwerp: University of Antwerp.
- LAZARD, G. (1957) *Grammaire du persan contemporain*, Paris: Klincksieck.
- MACKENZIE, D. N. (1971) *A Concise Pahlavi Dictionary*, London & New York: Oxford University Press.
- MAHMOODI BAKHTIYARI, B. (2006) "The morphology of bayad and shayad in Persian" [Sakhtvazheye bayad va shayad dar zabane farsi], *Dastoor*, 2, 152-169.
- MOFIDI, R. (2017) "The development of aspect and mood morphology in modern Persian" [Sheklgiriye sakhtvazheye nemood va vajh dar farsiye no], *Dastoor*, V12, 3-68.
- NARROG, H. (2012) *Modality, Subjectivity, and Semantic Change: A Cross-Linguistic Perspective*, Oxford & New York: Oxford University Press.
- NUYTS, J. [in prep]. *Modality in Mind*.

ORANSKIJ, I. M. (1963) *Les Langues Iraniennes (Iranskie Jazyki)*, Moscow: Nauka.

REZAI BAGHBIDI, H. (2009) *History of Iranian Languages*, Tehran: Centre for the Great Islamic Encyclopedia.

SKJÆRVØ, P. (2010) "Old Iranian", in G. Windfuhr (ed.), *The Iranian Languages*, London & New York: Routledge, 43-195.

TRAUGOTT, E. C. & R. DASHER (2002) *Regularity in Semantic Change*, Cambridge: Cambridge University Press.

WINDFUHR, G. (2009) *The Iranian Languages*, London & New York: Routledge.