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An Intonational Construction

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Abstract

The aims of this paper are twofold. First, it introduces an under-documented construction in Persian and investigates its intonational, semantic, pragmatic, syntactic, and information structure properties. A construction is seen here as a non-compositional form-meaning pairing, in line with Construction Grammar/ the Constructionist approach (e.g., Goldberg 1995, 2006). Second, it is in itself an argument in favour of the existence of intonational constructions where the tune determines the meaning (e.g., Liberman & Sag 1974; Marandin 2006). This construction, which has a specific and rather fixed intonation pattern, states the reason or cause of something, usually set in contrast to other possible reasons. The construction has its nuclear pitch accent on the first noun phrase followed by deaccentuation to the end of the utterance and it gets its reason-conveying meaning from this very intonation pattern, regardless of the words used in it.

1 Introduction

This paper deals with a certain "intonational construction" in Persian. The term "construction" is used here in the spirit of Construction Grammar/the Constructionist approach (e.g., Goldberg 1995, 2006), where a construction is regarded as a correspondence between form and meaning, which exists independently of the words used in it.[1] A construction, in this sense, has a meaning of its own, a meaning that is not the sum total of the meanings of its words: it is non-compositional. The Persian construction under study, which is referred to as the "Reason Construction" in this paper, is used by speakers to express the reason or cause of something, without any reason conjunction being present in it. The stated reason is usually set in contrast to other possible reasons which can be physically present in the previous discourse or just be identifiable in the mental representation of the interlocutors without being actually uttered. The intonational analysis of the Reason Construction, carried out in the framework of autosegmental-metrical theory of intonation (e.g., Pierrehumbert 1980; Ladd 1996), shows that this construction, which always spans over one intonational phrase corresponding to a declarative clause, is characterized by an early nuclear pitch accent on the first noun phrase followed by deaccentuation up to the utterance end. It is this specific intonation pattern that defines the construction. The view taken in this paper is in line with works such as Liberman & Sag (1974) and Marandin (2006) in that the meaning of the construction comes from its specific tune; as a result, different sentence types (e.g., copular, SOV, SV, motion/adverbial, and null subject) can be poured into the intonational mould of this construction and yield the same result, the result being the conveyance of the reason of something.

The organization of the paper is as follows. Section 2 provides the reader with a background on aspects of the Persian language relevant to the present paper. This includes a summary of the rules concerning the location of lexical stress and nuclear pitch accent and also the basic prosodic structure in this language. Section 3 is the main body of the paper which deals with the different aspects of the Reason Construction. In 3.1, the reader is introduced to the construction, its semantics, and its intonational properties. S/he is also familiarized with some other instances of the occurrence of the nuclear accent on an early constituent from languages other than Persian. Subsection 3.2 discusses the distribution of the Reason Construction in terms of different sentence types and the pragmatic, information structure, and phrasing constraints imposed on it. In 3.3, Reason Constructions are compared against sentences whose first noun phrase is contrastively focused. In their intonation pattern such sentences show a similarity to the Reason Construction, but are semantically different due to a difference in focus domains. Section 4 concludes the paper.

2 Background on Persian: stress, prosodic structure, and nuclear pitch accent

Persian is an Iranian language belonging to the Indo-Iranian sub-branch of the eastern branch of the Indo-European language family and is classified as an SOV language (Dabir-Moghaddam

1982; Karimi 2005). Jun (2005) classifies Persian with English, German, Dutch, Greek, Italian, Spanish, Portuguese, Arabic, and Bininj Gun-wok as "stress-accent" languages, i.e., languages in which a certain syllable in a word is more prominent than other syllables by phonetic factors, showing syntagmatic contrast. Pitch accents in Persian occur on the lexically stressed syllables (Eslami & Bijankhan 2002; Eslami 2003). Location of Persian lexical stress has been discussed in several works in the literature. Lazard (1992), Same'i (1996), Mahootian (1997), Vahidian-Kamyar (2001), Kahnemuyipour (2003), and Parmoon (2006) can be named among others. A summary of stress points in Persian includes the following. For nouns (*šuné* 'comb'), adjectives (*kutáh* 'short'), and most adverbs (*yæváš* 'slowly'), the stress is word-final. Such is the case for polymorphemic nouns, adjectives, and adverbs too:[2]

(1a) šune-há
comb-PL
'combs'

(1b) kutah-tær
short-COMPARATIVE
'shorter'

Verbs have their stress on the final syllable of the main constituent:

(2) xær-íd-æm.
buy-PST-1SG
'I bought.'

where *xær-id* (the past stem) is the main constituent and *-æm* is the person ending. The negative marker *ne-*/*næ-*, the durative prefix *mi-*, and the subjunctive/imperative prefix *be-* attract the stress in verbs (*né-xær-id-æm* 'I didn't buy'). Compound verbs, which comprise of a non-verbal element and a verb combined to denote a single predicate (Ghomeshi & Massam 1994; Dabir-Moghaddam 1995; Folli et al. 2005 among others), are stressed on the non-verbal element:

(3) geryé+kærd.
crying+do.PST.3SG
'S/he cried.'

Within the framework of autosegmental-metrical theory of intonation (e.g., Pierrehumbert 1980; Ladd 1996), a few works have been done on Persian intonation, which include Eslami (2000), Mahjani (2003), Scarborough (2007), and Sadat-Tehrani (2007b). The smallest intonational unit in Persian is the accentual phrase (AP) with the pitch accent L+H* associating with the stressed syllable. There are two allophones for this pitch accent: L+H* and H*, the former is used for words and phrases with final stress, e.g., nouns and adjectives longer than one syllable, and also for vocatives. Initially-stressed words, e.g., most verb forms, and monosyllabic content words have the allophone H*. The right edge of an AP is marked by a boundary tone that can be high (h) or low (l). The last AP in simplex sentences usually has a low boundary tone and everything after it is deaccented to the utterance end. Deaccenting, a term introduced by Ladd (1980) and widely used in recent years (e.g., Venditti et al. 1996; Gussenhoven 2004; Jun 2005; Cruttenden 2006), here refers to lack of any tonal event or pitch accent. An accentual phrase normally consists of one content word together with its possible clitics. One or more APs form an intonational phrase (IP) which is marked by the boundary tone L% or H%.[3] Example (4) and its pitch track in figure 1 illustrate the prosodic structure of Persian. The stressed syllable is indicated by an accent mark and the nuclear pitch accent (NPA) AP is italicized. The voice analysis software used is *Praat* (Boersma & Weenink 2007).

(4) miná milán=æm *mí-mun-e*
Mina Milan=too DUR-stay.PRS-3SG
čænd ruz.
a few day
'Mina stays a few days in Milan too.'

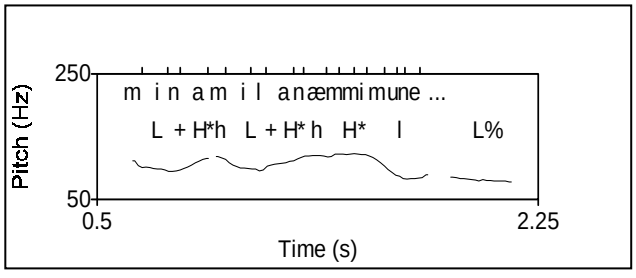

Figure 1. The utterance *miná milán-æm mí-mun-e čænd ruz* 'Mina stays a few days in Milan too.'

The utterance in (4) contains three APs. The first two, i.e., the subject *Mina* and the adverb Milan plus its clitic *-æm*, have a L+H* pitch accent and a high boundary tone, and the third, i.e., the initially stressed verb, carries the H* pitch accent. This last AP is the NPA of the utterance and has a

low boundary tone. The phrase *cænd ruz* 'a few days' follows the NPA and is deaccented. The utterance contains one IP ending with a low IP boundary tone (L%), which marks it as a declarative.

A contrastively-focused element forms its own Accentual Phrase, which becomes the NPA. This AP has the phonological representation of L+H*, the same as an ordinary AP. Everything after a focused element is deaccented (in the same sense as above). Example (5) and its pitch track in figure 2 are illustrative (contrastive focus is indicated by boldface)[4].

(5) miná ***Milán***=*æm* mi-mun-e
Mina Milan=too DUR-stay.PRS-3SG
cænd ruz.
a few day
'Mina stays a few days in **Milan** too.'

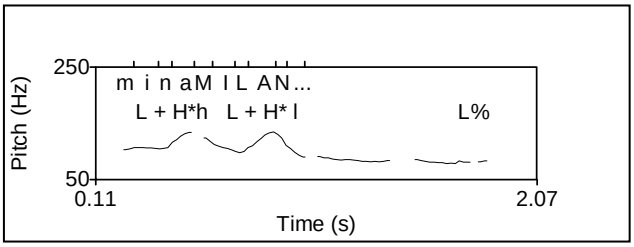

Figure 2. Contrastive focus utterance *miná* ***Milán****-æm mi-mun-e cænd ruz* 'Mina stays a few days in **Milan** too.'

In (5), which might be used to correct someone who has misheard the adverb *Milan*, the second AP is contrastively focused and has caused deaccentuation in the following elements.

Nuclear pitch accent, which has also been referred to in the literature with terms such as "nuclear stress" and "sentence stress", can be defined as "the perceptually most prominent accent in a prosodic phrase" (Hirschberg 2002: 34), and, in the majority of cases in English, is the last pitch accent (Cruttenden 1997). For instance, the word *station* in *John ran all the way to the station* is nuclear (Cruttenden 1997: 75). Persian NPA has been discussed, at least, in the following works: Eslami (2000), Vahidian-Kamyar (2001), Kahnemuyipour (2004), and Sadat-Tehrani (2007b). Based on Sadat-Tehrani's intonational grammar of Persian, the location of the NPA in Persian simplex sentences obeys the following rules and constraints. Copular verb sentences have their NPA on the complement:[5]

(6) divár *qerméz* bud.
wall red be.PST.3SG
'The wall was red.'

Null subject (7a) and scrambled (7b) sentences follow the same pattern:

(7a) *qerméz* bud.
red be.PST.3SG
'[It] was red.'

(7b) *qerméz* bud divar.
red be.PST.3SG wall
'The wall was red.'

If the complement is post-modified with the help of the Ezafe vowel[6], the NPA is on the modifier:

(8) divár qerméz-e *rošæn* bud.
wall red-EZ light be.PST.3SG
'The wall was light red.'

In (8), the complement modifier *rošæn* 'light' bears the NPA.

Unergative SV sentences (i.e., those with agentive subjects) are accented on the verb:

(9) pedrám *xænd-íd.*
Pedram laugh-PST.3SG
'Pedram laughed.'

Unaccusative SV sentences (i.e., those with non-volitional subjects) are accented on the verb if the subject is specific (10a) and on the subject if it is non-specific (10b).

(10a) ún namé *umád.*
that letter arrive.PST.3SG
'That letter arrived.'

(10b) yé *namé* umad.
a letter arrive.PST.3SG
'A letter arrived.'

The specificity constraint also holds for the direct object in SOV sentences. In such sentences, the NPA falls on the verb if the direct object is specific and on the direct object if it is non-specific. Complements and adjuncts can be added to SOV sentences. The former usually attract the NPA but the latter do not affect it.

The NPA in Persian cannot be on a post-verbal element except in motion/adverbial sentences.[7] An example is provided in (11).

(11) siná ræft-é *xuné.*
Sina go.PST-PTCP.3SG home
'Sina has gone home.'

The NPA in (11) is on *xune* 'home' which follows the verb.

The same rules stated so far for simple declaratives hold for *yes/no*-questions as well. *wh* -questions are different, however, because here, the NPA is on the *wh* -word:

(12) bæčče-há *kojá* ræft-æn?
child-PL where go.PST-3PL
'Where did the children go?'

In the case of multiple *wh*-questions, i.e., those with more than one *wh* -word, the last *wh* -word in the interrogative is the location of the nuclear accent.

A negative verb in the sentence attracts the NPA, regardless of any of the above-mentioned factors; however, in the presence of a contrastively focused element, even the negative verb loses its NPA status. The examples in (13) are illustrative.

(13a) hævá emrúz æbrí *næ-bud.*
weather today cloudy NEG-be.PST.3SG
'The weather wasn't cloudy today.'

(13b) hævá ***emrúz*** æbri næ-bud.
weather today cloudy NEG-be.PST.3SG
'The weather wasn't cloudy ***today***.'

In (13a), the negative verb (*næ-bud*) is nuclear but in (13b), the adverb *emruz* 'today' is contrastively focused, i.e., is set against other possible adverbs of time such as yesterday or last week, and has attracted the NPA.

Having become familiar with some characteristics of Persian regarding stress, prosody, and nuclear accent, we move on to the next section which deals with the construction under study.

3 The Reason Construction

3.1 The construction and its semantics

Consider the utterance in (14) which can be used as a response to the question "Why didn't you stay longer?".

(14) *hævá* najur bud.
weather bad be.PST.3SG
'Because the weather was bad.'

(14) is an example of the construction under study in this paper, which I refer to as the "Reason Construction"[8]. The Reason Construction has the following general contour shape: an early nuclear pitch accent followed by deaccentuation to the utterance end. This deaccentuation is identical to that occurring after the NPA in ordinary sentences. The NPA AP can be the first word of the utterance if the first noun phrase is a single word (example (14) above) or, less frequently, it can be on a later word if this noun phrase includes post-modification (example (15) below). In either case, the general shape and melody of the construction is the same, and native speakers intuitively hear the same tune for all instances of this construction. The sentence in (14), which is syntactically identical to a declarative copular sentence meaning 'The weather was bad', does not contain any cause/reason conjunctions (e.g., *čon*; *be xater-e inke*; *bæra-ye inke* 'because, since, owing to the fact'), but is construed as a reason adverbial clause since the NPA is on the first noun phrase – on the subject *hæva* 'weather' – instead of on the complement *najur* 'bad', which is the normal NPA location for copular sentences. So, the location of the NPA in the Reason Construction does not follow the rules described in section 2, rather, it is always in the first noun phrase. To clarify, let us consider the pitch tracks of *hæva najur bud* both as an ordinary copular sentence (figure 3a) and as a Reason Construction (figure 3b).

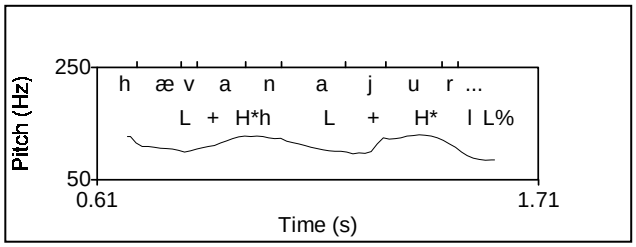

Figure 3a. The declarative sentence *hævá najúr bud* 'The weather was bad.'

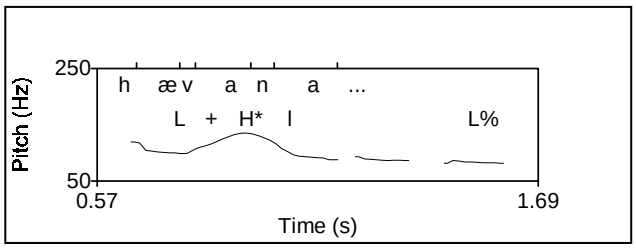

Figure 3b. The Reason Construction *hævá najur bud* 'Because the weather was bad.'

In the normal copular version (3a), the utterance consists of two Accentual Phrases, *hæva* 'weather' and *najur* 'bad', the second being the NPA. In figure 3b, the NPA is on the first and only AP of the utterance (*hæva*) resulting in the utterance being interpreted as expressing a reason. The reason stated in this construction is usually in contrast to other possible reasons. So for instance in example (14) above, the speaker is saying that the reason for not staying is that the weather was bad and not, for instance, that she didn't have more time or that she didn't like the city. These other reasons may be physically present in the previous discourse – e.g., when the Reason Construction is uttered in response to an alternative question such as "You didn't have more time or you didn't like the city?" – or may be identifiable in the mental representation of the interlocutors without being actually uttered – e.g., in response to "Why didn't you stay longer?".

If the first noun phrase of the sentence consists of more than one AP, as is the case with post-modified noun phrases, the NPA goes on the post-modifier. Example (15) is illustrative.

(15) hævá-ye *unjá* najur bud.
weather-EZ there bad be.PST.3SG
'Because the weather there was bad.'

The first noun phrase in (15) is the post-modified one (*hæva-ye unja* 'the weather there'), and the NPA is on the post-modifier *unja* 'there'.

Note that the conveyance of cause in the Reason Construction is not merely triggered by the context, i.e., the cause component is not simply interpreted because the sentence is used as a response to a *why*-question. The construction can also be used in situations where there is no such question posed by the first speaker. For instance, in an exchange taken from Canavan and Zipperlen's (1996) corpus, Speaker A says that she and her family are going to move to San Diego and suggests that Speaker B should go there in the winter for a visit. Speaker B, without being addressed by a direct *why*-question, says, *I don't know if I'll be busy in the winter or not* and then uses a Reason Construction meaning, *(because) [if I come for a visit] my expenses will go high*. Here, Speaker B does not necessarily have to give a reason, but she chooses to do so, and she does it with a Reason Construction. Such an example shows the pragmatic drive of the construction under study even in cases where there is no direct causal trigger for that.

The Reason Construction can be seen as an "intonational construction". The term "construction" is used here in the spirit of Construction Grammar/the Constructionist approach (e.g., Goldberg 1995, 2006), where a construction is seen as a non-compositional form-meaning pairing. The notion of "construction" was reintroduced into syntactic theory with Fillmore, Kay & O'Connor's (1988) article "Regularity and idiomaticity in grammatical constructions". The Construction Grammar view holds that there is no basic difference in the way a grammar should treat general patterns (e.g., the ordering of a finite auxiliary verb before its subject in English) and idiomatic patterns (e.g., *kick the bucket*) (Kay & Fillmore 1999). For instance, Goldberg (1995) discusses the "Caused-Motion Construction" in chapter 7 of her book. Three of her examples of this construction are listed below:

(16) They laughed the poor guy out of the room.

(17) Frank sneezed the tissue off the table.

(18) Mary urged Bill into the house. (Goldberg 1995: 152)

The syntactic structure used in this construction can be shown as [NP V NP PP], with the central meaning of 'the causer directly causes the theme to move along a designated path'. As can be seen, the words used in the examples are different but the base meaning is always preserved. The Reason Construction works in the same way. The central meaning of this construction, which is the conveyance of the reason of something, is encoded in its specific intonation pattern, which is an integral part of the construction and basically makes it what it is. Therefore, although it is true that a large amount of information is transferred by lexical items, such items do not affect the core semantics here (see the different examples of Reason Constructions given in the course of the paper). In this way, the Reason Construction is compatible with the view that the meaning comes from the tune, a position that is taken in works such as Liberman & Sag (1974), Sag & Liberman (1975), Fónagy, Bérard, Fónagy (1983), and Marandin (2006), and that can be extended to accommodate "Calling Contours" (e.g., Grice et al. 2000; Gussenhoven 2004) which have an almost fixed shape. For example, Liberman & Sag's (1974) "Contradiction Contour" consists of an initial rise, followed by a rapid fall, a low stretch, and a final rise at the utterance end, and the whole contour, regardless of the words

used in it, expresses the idea of contradiction. (19) and its pitch track in figure 4 are illustrative.

(19) Elephantiasis isn't incurable! (Liberman & Sag 1974: 420)

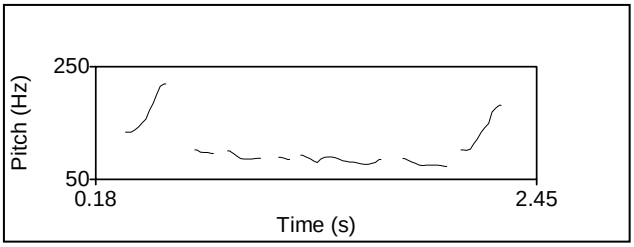

Figure 4. Liberman & Sag's Contradiction Contour

By this utterance, the speaker implies that s/he challenges the propositional content of the previous utterance which may have been *Elephantiasis is incurable* and thinks that the disease is curable.

The existence of the nuclear accent on an early element has been reported for other languages too; however, the semantic effect produced is not the expression of a reason. In English, in some intransitive sentences, the accent on the subject (as opposed to the predicate) categorically changes the meaning. For instance consider the pair in (20) taken from Faber (1987).

(20a) Penguins *swim*.

(20b) *Penguins* swim (around here). (Faber 1987: 343)

(20a) refers to a general characteristic of penguins while (20b) describes a particular instance of an event. Faber uses the terms "non-integrative" for the former (Gussenhoven's 1983 "definitional sentences"; Schmerling's 1976 "topic-comment sentences") and "integrative" for the latter (Gussenhoven's 1983 "eventive sentences"). Ladd (1996) suggests that basically sentences like (20a) have the new information in the predicate whereas in those like (20b), the subject and the predicate form a single unit of new information, or in Lambrecht's (1994: 14) words, "the new information extends over the entire proposition". This last property is seen in Reason Constructions as well: the Reason Construction is an all-new utterance and no given information is allowed in it (see subsection 3.2).

The NPA on the subject is also seen in unaccusatives, discussed for Persian in section 2, and exemplified for English, German, and Armenian below.[9]

(21) *A letter* has arrived.[10]

(22) *Die Milch* läuft über. German
the milk boils over
'The milk is boiling over.'

(23) *mart* e galis Armenian
man is coming
'A man/someone is coming.'
(Kahnemuyipour 2004: 151)

The factors above, i.e., eventive or unaccusative nature of the sentence, are not at work in the Reason Construction. In this construction, the NPA is on the first noun phrase to produce its particular semantic effect – that of the expression of reason or cause of something. The expression of reason by a specific intonation pattern has not, to the best of knowledge, been observed or documented for any language so far.

In summary, this section familiarized the reader with the basics of the Reason Construction. The Reason Construction is an intonational construction which is used by Persian speakers to express the reason or cause of something, and to set this reason in contrast to other possible reasons. It is an intonational construction since its meaning comes from its specific intonation pattern, i.e., when a propositional content is put in this mould, it will be enriched with a certain semantic content – that of the conveyance of a reason. Thus, the tune of this construction determines its meaning. The intonation of this construction is characterized by an early nuclear pitch accent followed by deaccentuation up to the utterance end. The next subsection takes a closer look at this construction and deals with the constraints that limit its use.

3.2 Distribution and constraints

The utterance in (14) above, repeated below in (24), is an example of a copular verb declarative sentence used as the Reason Construction.

(24) *hævá* najur bud.
weather bad be.PST.3SG
'Because the weather was bad.'

The Reason Construction can also be in the form of other declarative sentence types, as exemplified by Speaker B's utterances in (25), which are in the form of an SOV sentence, an SV sentence, and a motion/adverbial sentence respectively.

(25a) Speaker A: čeqædr
how much

behæmrixtæ=s inja!
messy=is here

'How messy it is here!'

Speaker B: *bæčče-há* væsa'el=ešun=o
child-PL things=their=RA[11]

avord-æn.
bring.PST-3PL

'That's because the children brought their stuff.'

(25b) Speaker A: četor hænuz
how come yet

næ-ræft-in?
NEG-leave.PST-2PL

'How come you haven't left yet?'

Speaker B: *elhám* xab-id-e.
Elham sleep-PST-PTCP.3SG

'Because Elham's asleep.'

(25c) Speaker A: četor kar xab-id?
how come work sleep-PST.3SG

'How come the work stopped?'

Speaker B: *doktor-šayán* ræft
doctor-Shayan go.PST.3SG

mosaferæt.
trip

'Because Dr. Shayan went on a trip.'

Speaker B's utterances in all three examples above are Reason Constructions and the NPA is on the first noun phrase, the subject. Note that the NPA location in the default declarative pronunciations of the utterances is not on the first noun phrase, rather, on the verb for the first two and on the adverbial (*mosaferæt* 'trip') for the third.

Persian is a null subject language and verbs bear person and number agreement inflections. SOV sentences without a subject, i.e., OV sentences, can be used in the Reason Construction form, in which case again the first noun phrase carries the NPA. Example (26) is illustrative.

(26) *púl* næ-dašt-æm
money NEG-have.PST-1SG
'Because I didn't have money.'

In (26), the direct object (*pul* 'money') is the first noun phrase and has the nuclear accent. The subject of this sentence (*mæn* 'I') is not overt and is encoded in the verbal morphology.

As mentioned in section 2, Persian is an SOV language; however, scrambling is a common process in this language, which results in pragmatic nuances (Mahootian 1997). Scrambled sentences cannot function as a Reason Construction. To exemplify, let us consider the scrambled version of (26), which appears in (27).

(27) *næ-dašt-æm* pul.
NEG-have.PST-1SG money
'I didn't have money.'

(27) is a verb-initial sentence in which the verb (*næ-dašt-æm*) has preceded the direct object, thus gaining more pragmatic prominence. Although perfectly grammatical by itself, (27) cannot be used as a Reason Construction. I suggest that the unacceptability of such sentences has to do with information packaging. As mentioned earlier, the Reason Construction is of a contrastive nature since it underlines one reason compared with other possible reasons. Now, in a scrambled sentence, the information load of the fronted element becomes higher; consequently, it does not allow the Reason Construction to keep its informational prominence. In other words, the prominence caused by scrambling clashes with the prominence caused by the Reason Construction, the former being the stronger of the two. So upon hearing the utterance in (27), a Persian speaker interprets it as a scrambled sentence (where more importance is attached to the negative verb than the direct object) and not as a Reason Construction.

A related observation is that contrastively focused elements are impossible in the Reason Construction. Consider the sentence in (28).

(28) **hævá* **najur** bud.
weather bad be.PST.3SG
Intended to mean: 'Because the weather was **bad**.'

The complement *najur* 'bad' cannot be focused since the Reason Construction already includes a proposition that has been put in contrast to other propositions (i.e., that the weather was bad) and is almost of focus nature; consequently, no element inside it is capable of receiving another focus. The contrastive focusing of the complement *bad* is intonationally

impossible too: the utterance in (28) has the NPA on the subject *hæva* if intended as a Reason Construction, causing the following elements to deaccent and disallowing *najur* to carry the NPA (which would have it as contrastively focused element).

Apart from the unacceptability of the coexistence of fronted and contrastively focused elements with the Reason Construction, the informational newness of the whole proposition in the Reason Construction puts a constraint on it with regard to the previous discourse: no information from the previous discourse is usually repeated in the Reason Construction. As an example, in response to the question "You've caught cold, did you go out?", a speaker may utter the Reason Construction in (29).

(29) *pænjeré* baz bud.
window open be.PST.3SG
'[No,] it was because the window was open.'

The same Reason Construction cannot be felicitously used if the question is "You've caught cold, was the room cold?". In such a scenario, both the question and the answer make reference to the coldness of the room, the former explicitly ('the room was cold') and the latter implicitly ('the window was open'). This would make the Reason Construction include given information and disrupt its all-new nature, and thus making it unacceptable. As the word *no* in the translation implies, the Reason Construction provides an alternative reason to the reason suggested in the question, so everything about it should be different from the question.

Now we move on to complex sentences, i.e., those containing a subordinate clause. In Persian such sentences are intonationally realized as either one or more intonational phrases (Sadat-Tehrani 2007b). The former can be cast in the mold of the Reason Construction and the latter cannot. This is due to a constraint regarding the prosodic phrasing of Reason Constructions: a Reason Construction can span over only one single IP. To illustrate, suppose speaker A is asking speaker B about the reason why it took speaker B so long to get a job done at a certain office. Speaker A may ask, *Why did it take you so long? Were your documents incomplete?*, and speaker B may use the Reason Construction below to explain:

(30) karmænd-i ke mæs'ul=eš
clerk-DEM REL responsible=CLITIC
búd vared næ-bud.
be.PST.3SG well-trained NEG-be.PST.3SG
'It was because the clerk who was responsible was not well-trained.'

(30) is a complex sentence containing a relative clause (*ke mæs'ul=eš bud* 'who was responsible'). The sentence is made up of one IP containing two APs, one for the subject (*karmænd* 'clerk') and one for the relative clause, the latter bearing the NPA. (Note that in the unmarked pronunciation of the utterance, the NPA falls on the negative verb *næ-bud*.) If a complex sentence consists of more than one IP (example (31)), the reason interpretation cannot be deduced:

(31) reza be=hem goft-e-bud
Reza to=me say.PST-PTCP-be.PST.3SG
una næ-ræft-an unja.
they NEG-go.PST-3PL there
'Reza had told me they didn't go there.'

In (31), a subordinate clause (*una næ-ræft-an unja* 'they didn't go there') is embedded within the main clause (*reza be=hem goft-e-bud* 'Reza had told me') and is the clausal complement of the verb *said*. In the default pronunciation of such complex sentences, each clause forms an IP:

(32) L+H*h L+H*h L+H*hH% L+H*h
reza be-hem goft-e-bud una
H* l L%
næ-ræft-an unja.

Hence, (32) cannot be used as a Reason Construction. To further demonstrate the effect of prosodic phrasing, let us compare the two simplex sentences in (33) below.

(33a) hale hæme-ye dust-a=š=o be
Haleh all-EZ friend-PL=her=RA to
ye mehmuni-ye bozorg
a party-EZ big
dæ'væt+kærd.
invitation+do.PST.3SG
'Haleh invited all of her friends to a big party.'

(33b) hale hæmæ=ro mehmuni
Haleh all=RA party
dæ'væt+kærd.
invitation+do.PST.3SG

'Haleh invited everyone to a party.'

The sentence in (33a) consists of the verb (*dæ'væt+kærd* 'invited') plus its three arguments, which are the subject (*hale* 'Haleh'), the direct object (*hæme-ye dust-a=š=o* 'all of her friends'), and the object of preposition (*ye mehmuni-ye bozorg* 'a big party'). (33b) has the same arguments as (33a) but the arguments have been shortened: the direct object is pronominalized, the object of preposition is unmodified and its preposition is dropped. The sentence in (33b) is pronounced as one single IP but in the extended version (33a), the extra length imposes an IP break somewhere within the sentence; therefore, the b sentence is much more natural as a Reason Construction ('because Haleh invited everyone to a party') in which case the subject *Haleh* becomes the only AP of the whole utterance, gets the NPA and causes deaccentuation to the end. The respiratory limitations play a role here: it is not easy to utter a very long string of deaccented syllables after an accented syllable.

To sum up this subsection, the Reason Construction can be used in different sentence types such as copular, SOV, SV, motion/adverbial, and null subject. Due to the contrastive nature of the Reason Construction, i.e., the fact that the proposition conveyed by this construction is set in contrast with other propositions, contrastively focused elements are disallowed in this construction, and for the same reason, scrambled sentences are ungrammatical as Reason Constructions. Also, no information from the previous discourse is repeated in the construction. It spans over a single IP and that is why complex sentences cannot be used as Reason Constructions as extensively as simplex sentences.

3.3 A similar intonation pattern

This subsection looks at a structure that is intonationally similar to the Reason Construction. The Reason Construction has its NPA on the first noun phrase. This makes it similar to a sentence whose first noun phrase is contrastively focused. Let us look at example (14) and its pitch track again, repeated below as (34) and figure 5.

(34) *hævá* najur bud.
weather bad be.PST.3SG
'Because the weather was bad.'

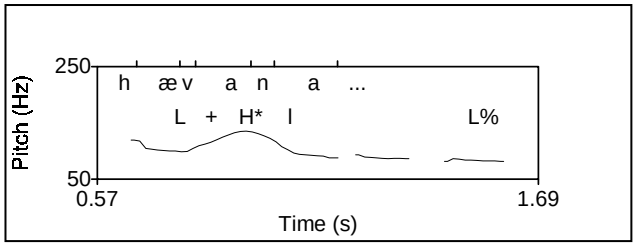

Figure 5. The Reason Construction *hævá najur bud* 'Because the weather was bad.'

As mentioned earlier, the speaker gives the reason for not staying longer by the Reason Construction in (34). Now, consider example (35).

(35) ***hævá*** najur bud.
weather bad be.PST.3SG
'Because the **weather** was bad.'

(34) is a declarative whose subject noun phrase is contrastively focused. The speaker means to say that the entity that was bad was not, for instance, the food or the hotel but the weather. The pitch track of this sentence is shown in figure 6.

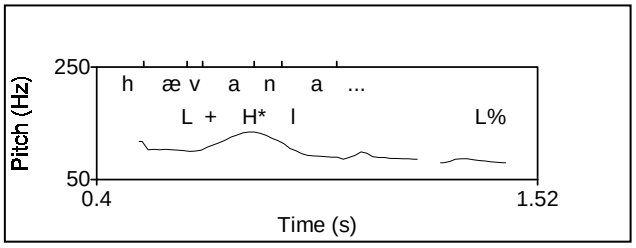

Figure 6. The declarative sentence ***hævá*** *najur bud* 'The **weather** was bad', with a contrastively focused element.

The contour is similar to that of the corresponding Reason Construction. The first noun phrase is the sole AP of the utterance and bears the NPA, followed by deaccentuation to the utterance end. Despite the (potential) perceptual difference in the amount of stress between Reason Constructions and their corresponding contrastive focus structures, Sadat-Tehrani (2007a) shows that the alignment of H and L, the duration of the stressed vowel, and the normalized pitch range are not significantly different in the two. This intonational similarity is not surprising: in both structures, the idea of contrast is present (recall that a Reason Construction states a reason in contrast to other possible reasons), and in line with the well-known fact that new information is marked by a pitch accent (e.g., Brown 1983),[12] "newness" has caused the NPA in both structures

to be on an element other than the default, namely the first noun phrase. However, the two structures are systematically different, the difference being in the focus domain. In the Reason Construction, the focus works at utterance level but in the contrastive focus sentence, it works at word level. This difference makes the two structures function in distinct ways. In the former, the whole proposition is contrasted against a set of other possible reasons, e.g., 'because the weather was bad' as opposed to 'because I didn't have more time' or 'because I didn't like the city'. In the contrastive focus case, the first noun phrase is highlighted against other alternatives, e.g., 'the weather and not the food or the hotel'. Testifying further to the difference between the two structures, if the subject is post-modified in the above examples, e.g., *hæva-ye unja* weather-EZ there 'the weather there', the NPA is on the modifier *unja* for the Reason Construction but for the focus version, it can either stay on *hæva* or shift to the modifier *unja* depending on which element is meant to be contrastively emphasized. So, owing to the existence of such differences, I suggest that the two structures, although sharing some similarities, are distinct from one another and each has its own function in the language.

4 Conclusion

A Persian intonational construction was studied in this paper. The construction, named the "Reason Construction", is defined by its specific intonation pattern, so its meaning comes from its tune. This construction always spans over a single IP corresponding to a root declarative, and its nuclear pitch accent is in the first noun phrase of the sentence; the rest of the utterance is deaccented. The Reason Construction conveys the reason or cause of something without any reason or cause conjunction being present in it. The reason expressed by the construction is usually in contrast to other possible reasons, which may or may not be actually present in the conversation but are nevertheless identifiable in the minds of the interlocutors. The whole proposition in the Reason Construction is new information and for this reason, elements that inherently bear new information, e.g., contrastively-focused elements or fronted constituents in scrambled sentences, are not allowed in the Reason Construction. For the same reason, no element from the previous discourse can be repeated in the Reason Construction, since such an element would count as given information in the Reason Construction and would be in contradiction with the new nature of the construction. Different sentence types, such as copular verb sentences, SOVs and SVs, motion/adverbial structures, and null subject sentences can be used in the Reason Construction format. Complex sentences, i.e., those containing subordinate clauses, can also be Reason Constructions, although to a lesser extent due to their extra length (which may cause them to be realized as more than one IP). Finally, Reason Constructions intonationally behave like sentences whose first element is contrastively focused, but the focus domains in the two structures are different, which makes them semantically function in two distinct ways.

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Notes

[1] Although used in different senses in the technical jargon, the terms "cause" or "reason" are used here interchangeably in their ordinary denotation. Hence, the meaning intended, as will become clearer through the examples in the course of the paper, is not theoretically charged.

[2] The abbreviations used in this paper are: DEM = demonstrative; DUR = durative; EZ = the Ezafe vowel; NEG = negation; PL = plural; PRS = present; PST = past; PTCP = participle; RA = specificity marker; REL = relative marker; SG = singular; "+" in the examples separates the two parts of a compound verb.

[3] A level between AP and IP (i.e., the intermediate phrase or ip) has also been suggested for Persian (e.g., Scarbourough 2007) but has been left out of this overview, since the simpler two-level system (IP and AP) suffices for the analysis of the present paper.

[4] Focus is used in different senses in the literature (see for instance Rizzi 1997; Kiss 1998; Zubizarreta 1998; Ladd 1996; Selkirk 2002; Gussenhoven 2004). Contrastive focus in this paper is taken to mean highlighting one or more elements in contrast to other element in the discourse, also referred to as "corrective focus" by Gussenhoven (forthcoming).

[5] The complement is sometimes referred to as the predicate.

[6] The Ezafe vowel *-e* (usually pronounced *-ye* after vowels) syntactically links some elements with their modifiers in Persian (for analyses of the Ezafe construction, see e.g., Samiian 1994; Ghomeshi 1997a; Larson & Yamakido 2005; Samvelian 2006).

[7] These sentences form a rather small subset of Persian sentences and their default word order is non-verb-final. They usually involve movement or contain an adverb of some sort.

[8] The occurrence frequency of the Reason Construction, which is a construction commonly used in Conversational Persian, was counted to be one in about every 69 minutes (based on 485 minutes of recorded telephone conversations in Canavan & Zipperlen's (1996) corpus).

[9] Passives have been observed to behave similarly for English (e.g., Rochemont 1998; Legate 2003) as in *My*

car was broken into. We may consider passives and unaccusatives as categorically the same, since both involve non-agent theme-like subjects.

[10] An anonymous reviewer points out that sentences (21) to (23) can also be used for stating a reason when, for instance, A and B are passing A's mailbox and A stops and in response to B's question who asks, *why did you stop?* utters (21) to mean 'because a letter has arrived'. I believe that in such situations, it is the requirements of the context that force the sentence to be interpreted as a reason statement and not its inherent intonational/syntactic properties.

[11] The enclitic *-ra* marks an object NP for specificity and is conversationally pronounced *ro* (and mostly *o* after consonants). For different analyses of *-ra* see e.g., Dabir-Moghaddam (1992), Karimi (1996, 2003), and Ghomeshi (1997b).

[12] Note however that the relation between information structure and pitch accents is more complicated than this. For instance, "degrees of givenness" play a role in the type of the pitch accent used (Baumann & Hadelich 2003; Baumann & Grice 2006), and not all given information is deaccented (Terken & Hirschberg 1994; Cruttenden 2006). Such issues are not relevant to the discussion in the present paper.

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