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Expressing Concession by Means of Nuclear Pitch Accent

The purpose of this research is to introduce a certain function of the nuclear pitch accent in Persian, i.e., the expression of concession. A nuclear pitch accent in this usage serves as a preface to a following statement, in which the speaker offers an alternative or contradictory point of view towards a previously highlighted discourse. This nuclear pitch accent is on a final verbal element in the utterance, and crucially, this final element is not associated with any pitch accent in the normal declarative reading of the same utterance, and it is only in this structure that it becomes nuclear-accented. Thus, the nuclear pitch accent behaves here as an intonational morpheme, but one that is bound to its location in the utterance. The paper also investigates the occurrence of this phenomenon in monoclausals, biclausals, and scrambled sentences, and identifies the constraints on its realization.

Keywords: Persian, intonation, nuclear pitch accent, concession, contrast.

1. Introduction

This paper explores an intonation pattern in modern colloquial Persian. The meaning conveyed by this pattern is that of concession or contradiction directed towards a proposition highlighted in the previous discourse, and it acts as an introduction to an upcoming assertion. What makes this pattern unique is the location of the nuclear pitch accent (NPA), i.e., the last pitch accent in an intonational phrase, a.k.a. sentence stress. Consider the ordinary declarative in Example (1) accompanied by its pitch track and wave form in Figure 1. The stressed syllable in each accentual phrase (AP) is shown with an accent mark, and the NPA is underlined.¹

- (1) hævá æbrí ʃod-ε.
weather cloudy become.PST-PTCP.3SG
'The weather has become cloudy.'

¹ An overview of Persian intonation is provided in section 2. The example utterances are recorded by the author, a native speaker of Persian, and Canavan and Zipperlen's (1996) corpus of over 25 hours of spontaneous phone conversations has been implemented to extend the evidential base of the paper. The voice analysis software used is Praat (Boersma & Weenink, 2016).

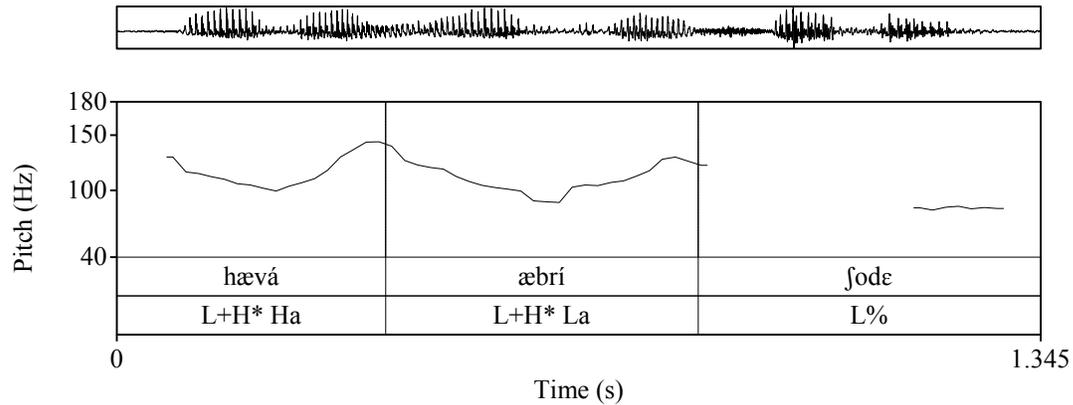


Figure 1: The declarative *hævá æbrí fod-ε* ‘The weather has become cloudy.’

In this copular sentence, the subject *hæva* ‘weather’ and the complement to the copula *æbri* ‘cloudy’ are each an AP, with the latter bearing the NPA. Now consider the exchange in (2). Figure 2 contains Speaker B’s wave form and pitch track.

- (2) Speaker A: *hævá æbrí fod-ε.*
weather cloudy become.PST-PTCP.3SG
 ‘The weather has become cloudy.’
- Speaker B: *hævá æbrí fod-é.* CC
weather cloudy become.PST-PTCP.3SG
 ‘[It’s true that] the weather has become cloudy. [But...].’

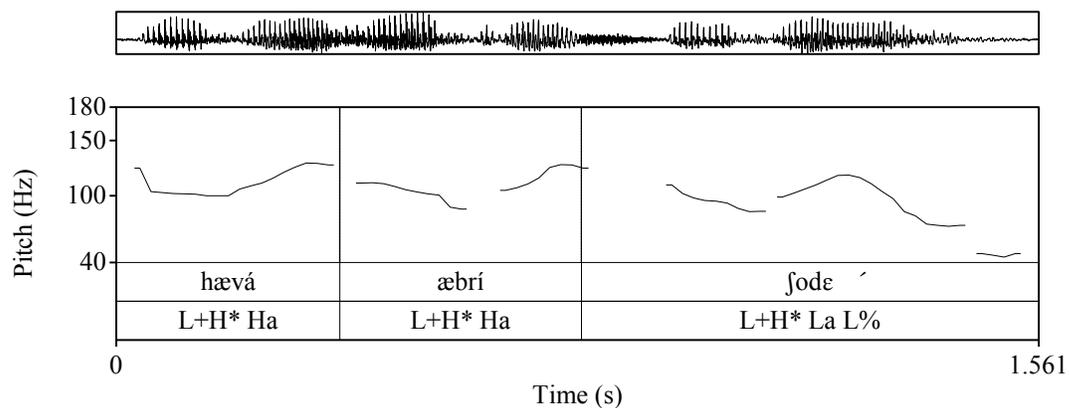


Figure 2: The concession construction *hævá æbrí fod-é* ‘[It’s true that] the weather has become cloudy. [But...].’

Speaker B's response represents the construction investigated in this paper, hereafter named the concession construction, or CC (marked CC beside the CC examples). This utterance has one AP more than speaker A's declarative — the copula *fod-e* 'has become' — which carries the new NPA. With the shift of the NPA to the last word, which is always a verbal element, speaker B acknowledges the propositional content of speaker A's sentence but also intends to add something contradictory to it or offer an alternative viewpoint; for instance, it can be the prequel to a clause such as ... *but I don't think it's going to rain*.

The intonation pattern of the CC is only detectable when the introductory declarative has a non-final NPA, as in such declaratives there is a post-NPA element that becomes a new AP, which is the differentiating factor between the CC and its related declarative. Nevertheless, a CC can also be used in response to a NPA-final utterance as well, in which case it will have the same intonation pattern as the declarative (Section 3). Also, in the case of non-verb-final scrambled sentences nuclear accented on the verb, the CC and the declarative share the same intonation pattern and no AP is added due to a constraint on post-verbal elements in Persian (Subsection 4.3.3).

The CC can be employed without the explicit presence of any immediate previous discourse as well. In such a case, a speaker can use the CC relying on shared knowledge between her and her addressee. For instance, if two interlocutors are taking a walk somewhere and it's noticeably cloudier than before but one of them thinks that it's still not likely to rain, s/he can use the above CC even without the other interlocutor having said anything, since the fact that the weather is cloudier functions as an identifiable unuttered proposition in the minds of the two individuals, making the context suitable for the felicitous use of the pattern.

The CC is widespread in conversational Persian, and its occurrence rate was counted to be approximately once every 72 minutes in Canavan and Zipperlen's (1996) corpus of over 25 hours of phone conversations. This paper shows that the creation of the semantics of concession by this construction is achieved solely by the addition of an AP accompanied by a change in the location of the NPA, making nuclear accent act as a morpheme. This phenomenon raises interesting questions about the intonation-meaning interface that will be discussed later in the paper (Section 5).

The organization of the paper is as follows. Section 2 contains an overview of Persian intonation structure. Section 3 introduces the different instances of a non-final nuclear accent. Section 4 discusses how the CC is realized, looks at its tonal structure, and investigates its behaviour in monoclausals, biclausals, and scrambled sentences, examining the constraints on its occurrence. Section 5 discusses the CC in the context of the theory of intonational meaning. The conclusions appear in Section 6.

2. Overview of Persian Intonation Structure

Persian is a null subject SOV language with variability in word order resulting in pragmatic nuances (Mahootian, 1997; Karimi, 2005). The intonational structure of

Persian has been studied in different works; for example, Towhidi (1974), Vahidian-Kamyar (2001), Eslami and Bijankhan (2002), Mahjani (2003), Sadat-Tehrani (2011), Taheri and Xu (2012), Hosseini (2014), and Rahmani, Rietveld, and Gussenhoven (2016). The more recent research has been carried out in the autosegmental-metrical (AM) framework of intonation, an approach developed by Ladd (2008) based on works such as Bruce (1977) and Pierrehumbert (1980). The smallest unit of intonation in Persian has been proposed to be the accentual phrase (AP), which is marked by the pitch accent L+H*, realized as H* for initially stressed words. The pitch accent is associated with a lexically stressed syllable, and is mapped onto a content word plus its enclitics. The lexically stressed syllable is mostly the final syllable of the main constituent of a word, with the exception of some stress-attracting verbal prefixes. Each AP has a high or low boundary tone, Ha or La (following the notation in Jun, 2005; 2014). In most (but not all) simple monoclausal sentences, the pre-nuclear APs are high-boundary toned, and the nuclear AP is low-boundary toned. One or more APs constitute an intonational phrase (IP), which can end with a high or low boundary tone, H% or L%. An utterance may consist of one or more IPs.² Example (7) and Figure 3 contain a typical SOV sentence.

- (7) mamán nún=o xær-íd.
mom *bread=SM* *buy-PST.3SG*
 ‘Mom bought the bread.’

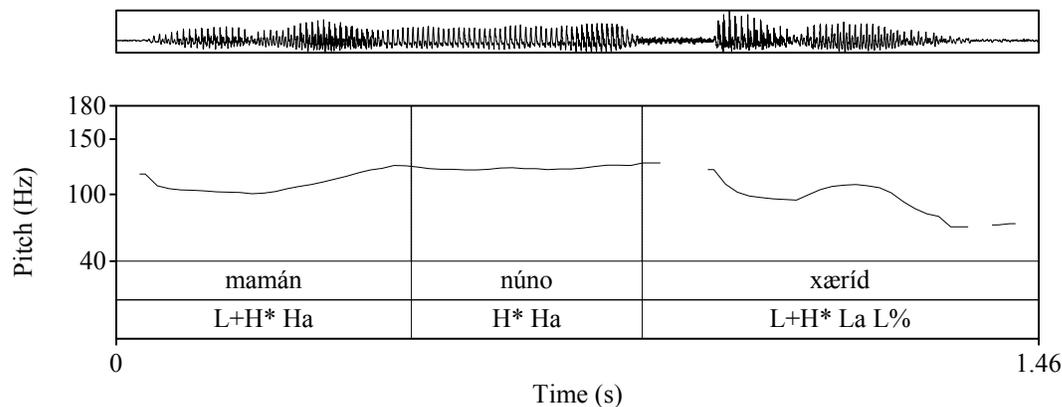


Figure 3: The ordinary SOV *mamán nún=o xær-íd* ‘Mom bought the bread.’

In (7) there are 3 APs: The subject *maman* ‘mom’ (L+H*), the direct object *nun=o* ‘bread’ (H*), and the verb *xær-íd* ‘bought’ (L+H*), the first two are pre-nuclear with a

² The simplified overview provided here suffices for the purposes of the present paper. For more detail on Persian stress see e.g., Kahnemuyipour (2009) and Sadeghi (2013), for the stress status of proclitics and function words see Hosseini (2014) and Pantcheva (2006), and for arguments for the existence of other prosodic divisions such as Clitic Group or Intermediate Phrase see Abolhasanizadeh, Gussenhoven, and Bijankhan (2012) and Mahjani (2003) respectively.

high AP boundary tone (Ha) and the third is nuclear with a low AP boundary tone (La). The utterance comprises one IP and ends low (L%).

3. Non-Final Nuclear Accent

Before beginning the discussion of non-final NPA, let's see how the CC is realized in a NPA-final utterance. As mentioned earlier, in the CC a final word that has no pitch accent forms an AP which bears the new NPA, exemplified in (2) above repeated below as (8).

- (8) Speaker A: hævá æbrí ʃod-ε.
weather cloudy become.PST-PTCP.3SG
 'The weather has become cloudy.'
 Speaker B: hævá æbrí ʃod-é. CC
weather cloudy become.PST-PTCP.3SG
 '[It's true that] the weather has become cloudy. [But...]'

But here is what happens if the CC is based on an utterance with a final NPA. Consider the exchange in (9).

- (9) Speaker A: mamán nún=o xær-íd.
mom bread=SM buy-PST.3SG
 'Mom bought the bread.'
 Speaker B: mamán nún=o xær-íd. CC
mom bread=SM buy-PST.3SG
 '[It's true that] mom bought the bread. [But...]'

In (9) speaker A's utterance is NPA-final. Speaker B's response CC has no added AP and it is phonologically identical to the declarative, i.e., *xær-íd* 'bought' has the nuclear accent in both utterances in this example. In such declaratives, there is no segmental material after the NPA to be the host of a new NPA in the CC, and consequently the nuclear accent remains where it is. The only difference between this type of declarative and its CC counterpart is that the CC's NPA tends to be phonetically realized with a slightly higher frequency than the declarative's NPA, which is related to the inherent contrastive nature of the CC, whose function is to signal a following concessive idea. Another situation where the CC is phonologically the same as the related declarative is in non-verb-final scrambled sentences. This is a specific case involving a certain constraint in Persian and will be looked at in Subsection 4.3.3.

Now let us move on to introduce those structures that are nuclear accented on a non-final word in their default pronunciation. There are several structures of this kind in Persian, in all of which the final word is a verbal element which is not realized as an AP. One of such structures is the copular construction. In these declaratives, a copula (linking verb) links the subject noun phrase to an adjectival phrase, an adverbial phrase, a

prepositional phrase, or another noun phrase (Mostafavi, 2015). The verbs *budæn* ‘to be’ or *fodæn* ‘to become’ commonly function as copulas. The structure of unmarked Persian copular constructions and an example appear in (10) and Figure 4.

- (10) *subject + complement + copula*
xuné *ærzún* *bud.*
house *cheap* *be.PST.3SG*
 ‘Houses were cheap.’

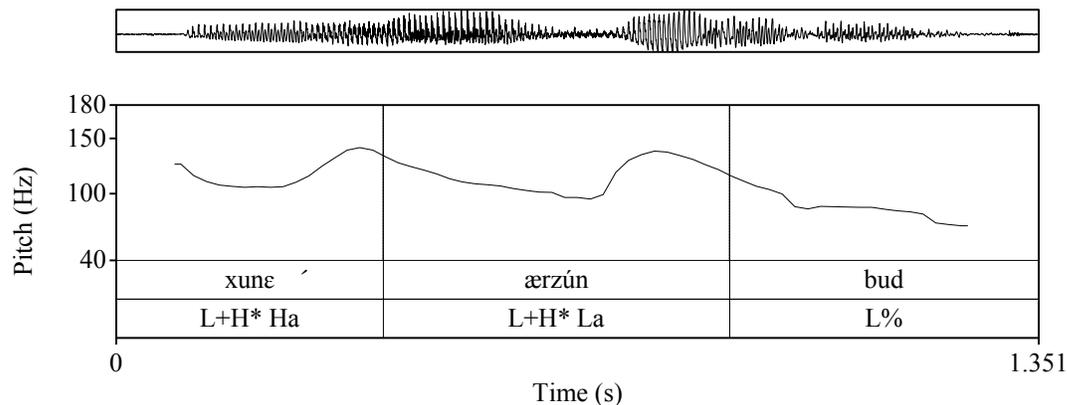


Figure 4: The copular construction *xuné ærzún bud* ‘Houses were cheap.’

The utterance in (10) consists of one IP and two APs. Both APs have the pitch accent L+H*. The first has a high boundary tone (Ha) and the second a low boundary tone (La). The IP ends with a low IP boundary tone (L%). In such constructions, the complement (*ærzún* ‘cheap’) has the nuclear accent. The copular verb (*bud* ‘was/were’), being located after the NPA, carries no accent, and is regarded as having undergone deaccentuation (Sadat-Tehrani, 2011; Rahmani, Rietveld, and Gussenhoven, 2016) or post focal compression (Taheri-Aardali and Xu, 2012; Taheri-Ardali, Rahmani, and Xu 2014).

A couple of other structures prosodically behave like copulars. The first are a few verb tenses that contain more than one word, known as periphrastic forms. (11) exemplifies the pluperfect.³

³ Two other common periphrastic forms that bear the stress on a non-final word are the future and the subjunctive past. The future (e.g., *xah-æm ræft* ‘(I) will go’) is left out in this analysis due to its being much more common in the formal/written register. The subjunctive past (*ræft-é bash-e* ‘(S/he) may have gone’) is not commonly used in the CC format, the reason of which will be looked at in Subsection 4.3.1.

- (11) L+H*Ha L + H*La L%
 Miná umæd-é bud.
Mina *come.PST-PTCP* *be.PST.3SG*
 ‘Mina had come.’

The pluperfect contains a form of the preterit of the verb *be* (i.e., *bud*), similar to copulars, which here acts as an auxiliary (Marashi, 1972). The first word in the verb phrase, i.e., *umæd-ε* ‘come’, takes the main accent, leaving the auxiliary without a pitch accent, just like the accentless copula in copular constructions.

The second is the passive. Persian passive, in its basic form, is comprised of the past participle of the main verb plus a form of the verb *ʃodæn* ‘to become’ (e.g., Nemati, 2013). Passives and copulars share parallel syntactic properties (e.g., Bonami and Samvelian, 2015), and their intonational behaviour also corroborate the affinity between them. (12) contains an example.

- (12) L+H*Ha L + H*La L%
 namé nεvεʃt-é ʃod.
letter *write.PST-PTCP* *become.PST.3SG*
 ‘The letter was written.’

In (12) the past participle of the main verb (*nεvεʃt-ε* ‘written’) gets the nuclear accent, just like the complement in copular constructions.

Another instance of non-final NPA is when the sentence ends with a compound verb. A Persian compound verb is a verbal unit consisting of a pre-verbal element and a verbal element, combined to form a single predicate (e.g., Folli, Harley, and Karimi 2005; Abdolkarimi, 2014). These verbs are normally stressed on the pre-verbal element. The example in (13) contains the compound verb *εdʒarε dad-ε* ‘has rented out’.

- (13) L + H*Ha L + H*La L%
 mænʒél=o εdʒaré dad-ε.⁴
house=SM *rent* *give.PST-PTCP.3SG*
 ‘S/he’s rented out the house.’

In (13) the NPA is on the pre-verbal element of the compound verb, i.e., *εjarε*.

Finally, a subset of SOV sentences in Persian are nuclear accented on the direct object. This happens when the direct object is non-specific (Sadat-Tehrani, 2008). This structure has been classified as one type of compound verb by some researchers, and the direct object has been called “incorporated noun” or “bare nominal” (Dabir-Moghaddam, 1997; Megerdooian, 2012). An example of such constructions appears in (14).

⁴ Note that this sentence lacks an explicit subject due to Persian being a null subject language.

- (14) L+H*Ha H*La L%
 be=heʃun púl dad.
 to=them money give.PST.3SG
 ‘S/he gave them money.’

Here, the nuclear accent is on the direct object *pul* ‘money’.

Having discussed five structures in Persian that take the nuclear accent on a non-final word followed by a stressless verbal constituent, in the next section, we will closely examine the CC, looking at its phonology, structures similar to it, its interaction with sentence types, and the restrictions on its creation.

4. The Concession Construction

This section deals with the details of the realization of the CC. First, we look at the added accentual phrase and its intonational properties and then compare the CC with the adversative coordinated and the narrow focus structures. Finally, we will see how the CC is used in different sentence types and what restrictions hold on its realization.

4.1. The addition of an AP

In all of the five structures studied in the previous section, there is a word after the NPA that is not associated with any pitch accent. Now, we will see that the occurrence of a pitch accent on these final elements will change the ordinary declarative to a CC, a construction that signals the intention of the speaker to add something contradictory to her statement or emphasize a different aspect of the matter. Examples (15) to (19) contain the tonal structure of each of the above five examples as a CC. In order to save space, only the first one is accompanied by the pitch contour (Figure 5) as the others follow the same pattern.

Copulars

- (15) xuné ærzún búd. 
 house cheap be.PST.3SG
 ‘[It’s true that] houses were cheap. [But...]’ [Possible addition: The prices were still over my budget.]

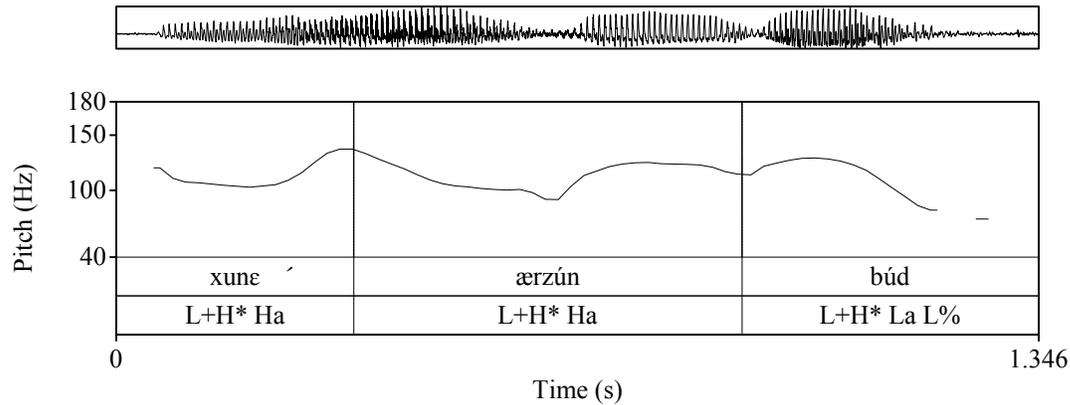


Figure 5: The concession construction *xuné ærzún búd* ‘[It’s true that] houses were cheap. [But...]’

Pluperfect

- (16) L+H*Ha L + H*Ha H*LaL%
 Miná umæd-é búd. 
Mina come.PST-PTCP be.PST.3SG
 ‘[It’s true that] Mina had come. [But...]’ [Possible addition: She didn’t stay very long.]

Passive

- (17) L+ H*Ha L + H*Ha H*LaL%
 namé neveft-é şód. 
letter write.PST-PTCP become.PST.3SG
 ‘[It’s true that] the letter was written. [But...]’ [Possible addition: It was not sent.]

Compound verbs

- (18) L + H*Ha L + H*Ha L+H*LaL%
 mænzel=o edzaré dad-é. 
house=SM rent give.PST-PTCP.3SG
 ‘[It’s true that] s/he has rented out the house. [But...]’ [Possible addition: The rent is too low and can’t be of any big help for her/him.]

Bare nominals

- (19) L+H*Ha H*Ha H*LaL%
 be=héşun púl dád. 
to=them money give.PST.3SG
 ‘[It’s true that] s/he gave them money. [But...]’ [Possible addition: They were still not happy.]

In all cases, there is an AP added to the end, which bears the new NPA, thus forcing the preceding AP to lose its nuclear status and to change its AP boundary tone from low (La) to high (Ha). A more detailed discussion of the intonation of this added AP is to follow.

4.2. The Tonal Configuration of the Added AP

The added accentual phrase ends similarly to that of a normal declarative, i.e., with a low AP boundary tone (La) followed by a low IP boundary tone (L%), as shown in (20) below.

(20) ... La L%

This is the pattern we have seen in the CC examples provided in the paper so far. There is another tonal possibility for the boundary tones of this added AP too. The CC can end with a high AP boundary tone (Ha), in which case the IP ends with a high boundary tone (H%) as well, represented in (21).

(21) ... Ha H%

Let's call these two versions the low and the high version respectively. The utterances in (22) and (23) exemplify them (Figures 6 and 7).

(22) *mænzél=o* *edʒaré* *dad-é*. CC
house=SM *rent* *give.PST-PTCP.3SG*
 ‘[It’s true that] s/he has rented out the house. [But...]

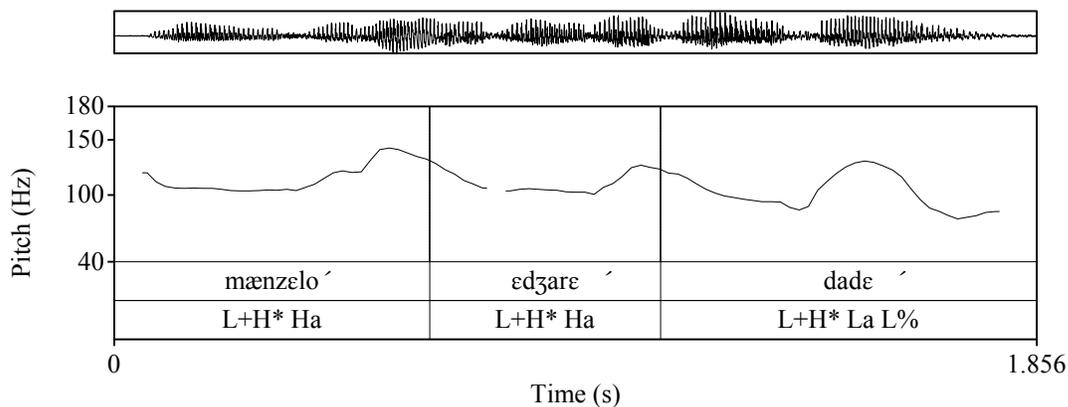


Figure 6: The concession construction *mænzél=o edʒaré dad-é* ‘[It’s true that] s/he has rented out the house [But...]

- (23) *mænzél=ó* *édzará* *dad-é*. CC
house=SM *rent* *give.PST-PTCP.3SG*
 ‘[It’s true that] s/he has rented out the house. [But...]’

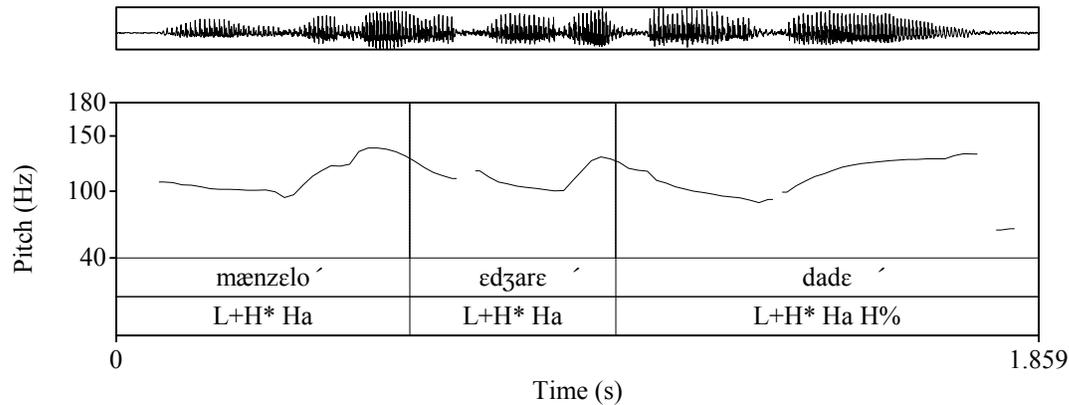


Figure 7: The concession construction *mænzél=ó édzará dad-é* ‘[It’s true that] s/he has rented out the house [But...]’ (high version).

Both alternatives are common, but the first one has more occurrences. In my data of over 25 hours of phone conversations (Canavan and Zipperlen 1996), the occurrence frequencies of the low and the high version are 60% and 40% respectively. The choice between the two is one of information structure. When using the high version (Ha H%), the speaker wishes to attach more importance and newness to what follows the CC, whereas the low version (La L%) implies that the CC itself is as important as the following message. This is in line with the general forward-looking function of a high boundary tone, which prepares the hearer for upcoming material.

Another point to discuss is the intonational similarity between the high version of the CC (Example (23) above) and the first clause of an adversative coordinated structure, i.e., clauses conjoined by the conjunction *væli* ‘but’. Example (24) and Figure 8 contain the first clause of an adversative structure, i.e., the pre-conjunction clause. A full adversative coordinated structure is typically realized as two IPs, the pre-conjunction and the post-conjunction, the latter is not shown here due to its irrelevance to the discussion.

- (24) *mænzél=ó* *édzará* *dad-ε,* (*væli...*)
house=SM *rent* *give.PST-PTCP.3SG* *but*
 ‘S/he has rented out the house, (but...)’

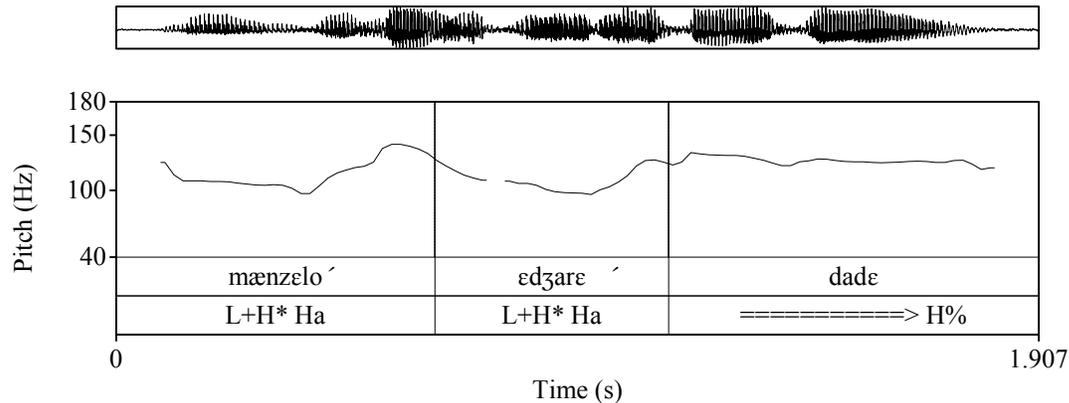


Figure 8: The pre-conjunction clause *mænzél=ó edzare' dad-ε*... 'S/he has rented out the house...'

As can be seen, the contour ends with *L+H* Ha H%*, similar to the high version of the CC. However, there is a crucial distinction: The location of the NPA. It is on the non-final word *edzare* 'rent' in the adversative structure, and on the final word *dad-ε* 'given' in the CC. This results in the following difference: In the adversative the AP boundary tone of the NPA is spread over the next word up to the IP end, shown with an arrow in the figure. This further highlights the uniqueness of the CC. In the adversative structure, before the word *væli* 'but' there's no intonational cue to necessarily imply the speaker's intention to contradict, since the same intonation pattern (i.e., ...*L+H* Ha====> H%*) can be used for certain other structures as well, such as the first clause in coordinated sentences conjoined with *and*. In the case of CC, however, the purpose of the speaker is made clear the moment the CC is uttered, even before adding anything contradictory. In other words, in the *væli* 'but' coordinated structure, the whole sentence including the pre-*but* and the post-*but* clause is needed in order to convey the contrast intended, while in the CC, even before the addition of any contradictory clause, the speaker's purpose is clearly signalled to the hearer via the use of the specific intonation, i.e., the addition of an AP and the shift of the NPA.

In sum, the tonal configuration of the ordinary declarative, the first IP of the *væli* 'but' coordinate structure, and both versions of the CC are given below in (25) for comparison, with the tonal structure under study italicized. An arrow denotes tone spreading. Parallel lines separate IPs.

- (25) a. Declarative: L + H*Ha L + H*La L%
- mænzél=o ɛdʒaré dad-ε.
- b. *but* coordination: L + H*Ha L + H*Ha==>H% || ...
- mænzél=o ɛdʒaré dad-ε, || váli...
- c. Low CC: L + H*Ha L + H*Ha L+ H*LaL%
- mænzél=o ɛdʒaré dad-é.
- d. High CC: L + H*Ha L + H*Ha L+ H*HaH%
- mænzél=o ɛdʒaré dad-é.

As can be seen, in a and b, the NPA is on the compound verb’s pre-verbal element (*ɛdʒarɛ*), while in both CC versions it is on the verbal element (*dad-ε*), which is the added AP.

A final note concerns the similarity between the low version of the CC and narrow focus. As discussed, the NPA in the CC is on an element that is not the normal nuclear accented word. This makes the contour similar to that of an utterance with narrow focus on that element. Consider the narrow focus example in (26) and Figure 9. The narrow focus word is shown in upper-case characters.

- (26) mænzél=o ɛdʒaré DAD-É.
house=SM rent give.PST-PTCP.3SG
 ‘S/he HAS rented out the house.’

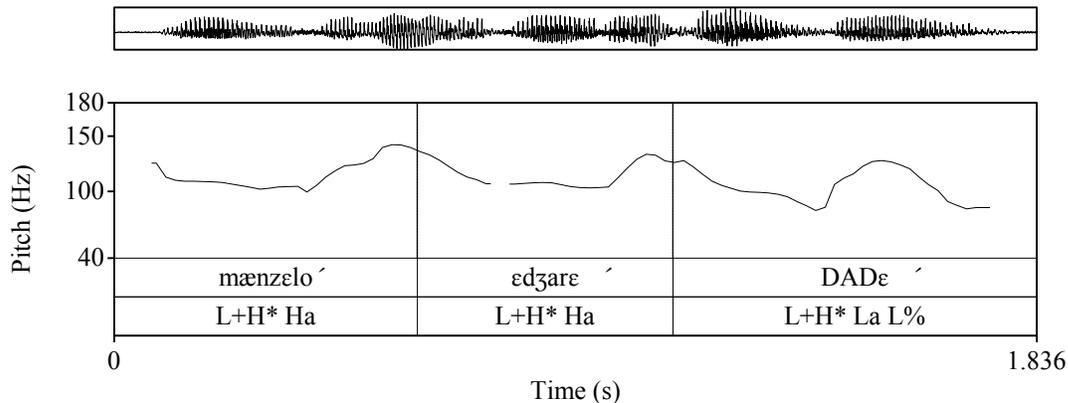


Figure 9: The narrow focus utterance *mænzél=o ɛdʒaré DADÉ* ‘S/he HAS rented out the house.’

The highlighting of the word *DAD-ε* ‘given’ in the above utterance can, for instance, be employed as clarification to someone who has misheard it as another word (e.g., *næ-dad-ε* ‘not given’). The pitch contour of (26) is similar to the low version of the CC: The

focused AP carries the NPA and is associated with a L+H* pitch accent and a low boundary tone (La), bringing the IP to a low finish (L%). Nevertheless, the two are distinct structures. While the concept of contrast exists in both narrow focus and the CC, it functions differently in the two. The narrow focus is used to contrast an item with other alternatives — the word *dad-ε* ‘given’ with *næ-dad-ε* ‘not given’ in our example. However, the highlighting done in the CC in the form of the newly added AP does not put this AP in contrast to other possible APs; it is just a signal that a contrasting idea is about to follow in the next clause.

Having studied the two tonal possibilities for the CC and having compared the CC to adversative coordinated structures and narrow focus utterances, we now explore the interaction of the CC and sentence type and determine the limitations on its production.

4.3. Behavior in Sentence Types and Constraints

In this subsection the interaction of the CC with different sentence types will be investigated. It will be shown how the CC is implemented in simple sentences comprising one independent clause, complex sentences containing subordinate clauses, and scrambled sentences. The restrictions on the production of the CC will also be discussed.

4.3.1. Monoclausals

The CC can generally occur freely in the 5 cases of simple monoclausal sentences discussed in Section 3 (copulars, pluperfect, passive, compound nouns, bare nominals), i.e., cases where there is the possibility of adding an AP. However, a couple of constraints deserve to be mentioned in this regard. In Persian copular constructions, if the copula is the present tense of *be*, it is usually colloquially realized as an enclitic and is cliticized to the complement. Consider Example (27).

- (27) H*Ha H*LaL%
 dær báz=ε.
 door open=*is*
 ‘The door is open.’

In this example, the copula (*ε* ‘is’) is an enclitic cliticized to the complement *báz* ‘open’, and the two together form one AP, which has the NPA of the utterance. Now, if this utterance wants to be employed as a CC, since there’s no content word after this AP to carry the new NPA, the enclitic is realized as a full word as exemplified in (28).

- (28) H*Ha H*Ha H*LaL% 
 dær báz hást.
 door open is
 ‘[It’s true that] the door is open. [But...].’

The full realization of the copula (*hæst* ‘is’) provides the separate AP that is needed for the successful production of the CC.

The next point concerns periphrastic forms. As mentioned earlier, the most common periphrastic form used as a CC is the pluperfect. Another periphrastic form, the subjunctive past, deserves some attention here. This tense normally follows an introductory modal (e.g., *bajæd* ‘must’ or *fajæd* ‘may’) or clause (e.g., *fæk dar-æm* ‘I doubt’, *fekr kon-æm* ‘I think’). An example appears in (29).

- (29) *fæk* *dar-æm* *umæd-ε* *baʃ-ε*.
doubt *have.PRS-1SG* *come.PST-PTC* *be.PRS-3SG*
 ‘I doubt if s/he has come.’

The subjunctive past is not commonly employed in the CC mould. The reason for this is related to the semantics of this tense. The subjunctive past has the modal value of obligation, doubt, eventuality, etc. (Lazard, 1992), and the expression of contradiction or concession by an addressee is not compatible with it. No instance of a subjunctive past CC was found in Canavan and Zipperlen’s (1996) corpus.

4.3.2. Biclausals

The CC can be used in complex sentences but with some restrictions. Consider Example (30) where the CC is the clausal complement of the verb *mi-goft* ‘said’.

- (30) *mi-goft* *mæsælæn* *xob* {*ingilisi=ʃ* *xúb* *bud-é*} CC *væli...*
DUR-say.PST.3SG *like* *well* *English=her* *good* *be.PST-PTCP.3SG* *but*
 ‘He said, like, well, her English was good, but...’
 (Canavan & Zipperlen 1996: FA-6879, 12:52-12:55)

In (30) the embedded subordinate clause, shown inside curly brackets, is a CC, and the copula in it (*bud-ε* ‘was’) carries the NPA. After the conjunction *væli* ‘but’, the speaker added something to the effect that it was not her good English that made her quick graduation possible, but that she was smart and had a good academic background.

The complex sentence above can also be realized with the matrix clause as a CC. This is exemplified in (31), where the particles *mæsælæn* ‘like’ and *xob* ‘well’ have been omitted for simplicity, and the matrix verb has also been changed to pluperfect (*said* → *had said*) for the effect of the NPA shift to be clearly visible.

- (31) *goft-é* *búd* CC {*ingilisi=ʃ* *xub* *bud-ε*}, *væli...*
say.PST-PTCP *be.past.3SG* *English=her* *good* *be.PST-PTCP.3SG* *but*
 ‘He had said her English was good, but...’

In such a case, the word *bud* ‘was’ has the NPA, deaccenting the subordinate clause. The potential post-CC portion in (31) would be different from that in (30), since the semantic

contrast is here directed towards the propositional content of the matrix clause (*he had said*). As an example, a possible follow-up clause could be ... *but I don't believe him*. Diagram 1 illustrates the semantic difference between the post-CC segments in the two cases.

a. *The CC is the subordinate clause*

[He said [her English was good.]] → But her admission was not because of her good English.

CC

b. *The CC is the matrix clause*

[He said [her English was good.]] → But I don't believe him.

CC

Diagram 1: The concession construction occurring in the subordinate clause (a) and the main clause (b)

The CC can also occur in complex sentences containing an adverbial subordinate clause. Example (32) is illustrative.

(32) {béqejræz ʃenasnamé mædarék-ε digé=i=æm æge búd
other than ID card documents-of other=ind=too if
be.PST.3SG

mésl-ε kárt-ε pajan-ε xedmæt=o tæsdíq=o indʒur tʃiz-á}
like-of card-of end-of service=and driver's licence=and such
thing-PL

ke qæbúl mí-kærd-æn CC væli...
PCL acceptance DUR-do.PST-3PL but

‘Other than ID card, if there had been other documents like military service completion card, driver’s licence, etc., they would’ve accepted, but...’

(Canavan & Zipperlen 1996: FA-4218, 1:04-1:12)

The matrix clause in (32) consists of a compound verb (*qæbul mí-kærd-æn* ‘would’ve accepted’), the verbal part of which (*mí-kærd-æn* ‘did’) has the NPA, thus creating a CC. The context here is that the speaker didn’t have any kind of ID so he couldn’t apply for a passport. Note that sentence length does not pose any restriction on the occurrence of the CC, and it is possible for a speaker to produce a long utterance and put a CC at the end;

however, if two interlocutors are involved and the first speaker's utterance is lengthy, the second speaker's CC is usually short and contains only the last part of the first speaker's production (see the next example).

Complex sentences with an embedded relative clause can accommodate the CC as well. Consider the utterance in (33), which contains a subordinate relative clause.

- (33) Speaker A: *dirúz* *jé* *næfær* *ʃerkæt* *búd*
yesterday *a* *person* *company* *be.PST.3SG*
- {*ke* *komæk=εʃun* *mi-kærd*}.
who *help=their* *DUR-do.PST.3SG*
- 'Yesterday there was someone in the company who helped them.'

Both the matrix and the subordinate clause can turn into a CC, resulting in different interpretations. (34a) and (34b) are two possible responses, where the matrix clause and the relative subordinate clause, respectively, have been utilized to build the CC.

- (34) Speaker B: a. *ʃerkæt* *búd* [CC] *væli...*
company *be.PST.3SG* *but*
 '[Someone] was in the company, but...'
- b. *komæk=εʃun* *mi-kærd* [CC] *væli...*
help=their *DUR-do.PST.3SG* *but*
 '[He] helped them, but...'

The post-CC contrasts in the two scenarios will be different. In (34a) it will be in semantic connection with the propositional content of the matrix clause, i.e., *there was someone in the company*, and in (34b) with the relative clause, i.e., *someone helped them*. As an example, (34a) can be followed by *they need someone at home not in the company*, and (34b) by *he charged them too much in return for his help*. Note that as mentioned above, speaker B's response CC in an exchange is usually kept short, and not all the constituents from speaker A's declarative are repeated.

4.3.3. Scrambled Sentences

As mentioned in Section 2, the basic word order of Persian is SOV, but deviations to this order are common, creating pragmatic differences (which are irrelevant to our discussion). Consider the default word order sentence in (35a) and its scrambled counterparts in (35b-f).

- (35) a. Sayéh bæstæ=ro fərest-ád. [SOV]
Sayeh parcel=SM send-PST.3SG
 ‘Sayeh sent the parcel.’
- b. bæstæ=ro Sayéh fərest-ád. [OSV]
- c. Sayéh fərest-ád bæstæ=ro. [SVO]
- d. bæstæ=ro fərest-ád Sayeh. [OVS]
- e. fərest-ád Sayeh bæstæ=ro. [VSO]
- f. fərest-ád bæstæ=ro Sayeh. [VOS]

(35a) has the NPA on the verb, and so do all the variants. Let’s consider (35c) to (35f), where there is non-final nuclear accent on the verb followed by a non-verb, and see how they can be implemented as a CC. Example (36) shows an exchange including (35c) and its response CC.

- (36) Speaker A: L+H*Ha L + H*La L%
 Sayéh fərest-ád bæstæ=ro.
Sayeh send-PST.3SG box=SM
 ‘Sayeh sent the parcel.’
- Speaker B: L+H*Ha L + H*La L%
 Sayéh fərest-ád bæstæ=ro. 
Sayeh send-PST.3SG box=SM
 ‘[It’s true that] Sayeh sent the parcel. [But...]’ [Possible addition: The book that I’d asked for wasn’t in it.]

The two utterances are phonologically identical.⁵ The mechanism is as follows: The CC based on scrambled sentences with the nuclear accent on the non-final verb followed by a non-verbal word has no extra AP added, and the verb (*fərest-ád* ‘sent’ in our example) remains the NPA. The utterances (35d) to (35f) follow this pattern as well, i.e., their CC counterpart is nuclear accented on the verb. This behaviour is not surprising. The rationale behind this is a constraint in Persian: In this language, elements following the verb cannot receive prominence. So in these examples the direct object (*bæstæ(=ro)* ‘box’) and/or the subject (*Sayeh*) are not accented, and the above-mentioned constraint does not allow them to form APs; it rules out the addition of the extra AP. Note that in all the other CC cases studied in this research, i.e., copular constructions, the pluperfect, the passive, compound verbs, and bare nominals, there is no violation of this constraint, because in them, the added AP is never a post-verbal element; it is either the verb of the sentence — in copulars and bare nominals — or part of the verbal compound — in the pluperfect, the passive, and compound verbs.

⁵ Phonetically, similar to NPA-final utterances (beginning of Section 3), the CC’s NPA is higher than the declarative’s NPA owing to its contrastive nature.

5. Discussion

The assignment of the semantics of concession in the CC is done through intonation, and this raises the question of how and in what ways intonation can affect meaning. The aim of the present section is to assess the contribution of this paper's investigated contour to this debate. The link between intonation and meaning has long been studied, but scholars are not in full agreement as to the way intonation interacts with meaning.⁶ Pierrehumbert and Hirschberg (1990), basing their work on Pierrehumbert's (1980) description of English intonation, started a compositional theory of meaning of intonational contours, saying that the major components of English intonation, i.e., pitch accents, phrase accents, and boundary tones, have distinct meanings. For example, they hold that boundary tones determine whether an intonational phrase should be interpreted in relation to the next phrase or not: A high boundary tone signals to the hearer that s/he should wait for subsequent utterances to interpret the message, while a low boundary tone indicates that interpretation can be done without regard to any such utterances. One of their examples appear in (3) below.

- (3) a. My new car manual is quite unreadable L%
 It's quite annoying H%
 I spent two hours figuring out how to use the jack L%
- b. My new car manual is quite unreadable H%
 It's quite annoying L%
 I spent two hours figuring out how to use the jack L%
- (Pierrehumbert and Hirschberg 1990: 305)

In (3a) the speaker is annoyed that s/he has spent two hours figuring out how to use the jack, whereas in (3b) the annoying fact is the unreadability of the manual. Other recent works that have focused on this aspect of intonation-meaning relationship include Bartels (1999), Truckenbrodt (2012), Liu, et al. (2013), and Portes and Beyssade (2015). For example, Liu, et al. (2013) present evidence to show that communicative prosodic functions (rather than individual units) create meaning. They state, for instance, that focus is defined by an increase in pitch range, duration, intensity, and high-frequency energy on the focused element and a post-focus drop in F0 and intensity, and all these together show morpheme-like behaviour as a whole.

Another line of intonation-meaning interface research focuses on the tune of a construction, i.e., the overall shape of the contour, exemplified by works of Liberman and Sag (1974), Ward and Hirschberg (1985), Dainora (2006), Sadat-Tehrani (2008), Calhoun and Schweitzer (2012), and Ward (2014). These authors have demonstrated certain instances of direct relationship between tune and meaning. For example, Calhoun and Schweitzer (2012) in their study of a corpus of phone conversations conclude that intonation contours of certain utterances are stored as lexicalized items, which they call "intonational collocations," e.g., *I think...*, which signifies the assertion of a strong

⁶ For an overview of the literature on intonational meaning see Prieto (2015).

opinion on a controversial topic. Another example of this direct relationship is the chanted call (Ladd, 1978; Day-O’Connell, 2013; Arvaniti, Žygis, and Marek Jaskuła, 2015; among others), where the speaker employs a specific melody — usually identified by a sequence of low, high, and mid tones — to call an addressee.

The contour studied in the present paper, the CC, gets its identity from the addition of an AP and the shift in the location of the NPA. The extra accent “means” concession and contradiction, and this meaning is not affected by the shape of the contour preceding it. Thus, the CC might be seen as an instantiation of the theory of compositional meaning in intonation where an intonation feature displays morpheme-like characteristics. However, it is important to note that the CC does not represent a full-fledged case of compositionality owing to the fact that it is not just any NPA that brings about the meaning of the contour, rather the location of this nuclear accent is also crucial: It has to be on the added AP, an AP that does not exist in the ordinary non-CC form of the same utterance. Carrying on with the morpheme analogy, the NPA in the CC could be regarded as an allomorph: The morpheme nuclear pitch accent can denote the general idea of contrast, as when it is used to show narrow focus, but if it is employed in a certain location in the utterance, it can signal concession and an opposing viewpoint in the upcoming discourse. Hence the NPA in the CC is a location-bound allomorph of the morpheme NPA, since it has to be on a newly created AP that does not exist in the declarative version of the CC.

The shift in the location of the nuclear accent has been observed by researchers to happen for a number of reasons. Firstly, information structure is known to interact with intonation (e.g., Vallduvi and Engdahl, 1996; Steedman, 2000) and can play a role in determining the nuclear accent. For example, it is well established that a contrastively focused word receives the main accent of a phrase.

Second, the shift of the NPA from the verb to the subject in certain topic-comment sentences (Schmerling, 1976) can expand the domain of the new information (Ladd, 2008). Compare the pair in (4) taken from Faber (1987).

- (4) a. Pénquins swím.
 b. Pénquins swim (around here).

(Faber 1987: 343)

In (4a) the new information is the verb, whereas in (4b) the whole proposition is new. Faber (1987) calls the first type non-integrative and the second type integrative, and Gussenhoven (1983) uses the terms definitional and eventive for them.

Another case of the occurrence of the nuclear accent on the subject is unaccusative sentences, which are sentences whose intransitive verb does not have an agentive subject (Perlmutter, 1978). In all-new unaccusative sentences, the NPA is on the subject (e.g., Kahnemuyipour, 2009; Irwin, 2012), exemplified in (5).

- (5) Anóther váse broke.

(Irwin 2012: 208)

In this utterance, the non-agent subject *vase* gets the NPA. Note that if the same utterance is not all-new, e.g., in a context where vases have already been referred to in the previous

discourse, then the NPA goes on the verb. For example, if speaker A asks what happened to the vases that used to be in the cupboard, speaker B could say *One vase is being used, another vase broke*, ...

Finally, a language-specific case of NPA shift is documented in Sadat-Tehrani (2008) for a construction in Persian where the fronting of the nuclear accent to the first noun phrase results in the expression of reason or cause of something. (6) is an example.

- (6) *hævâ* *nadzur* *bud*.
weather *bad* *be.PST.3SG*
 ‘Because the weather was bad.’

(Sadat-Tehrani 2008: 4)

If the utterance in (6) is used as an ordinary declarative, it has the default nuclear accent on the adjective *nadzur* ‘bad’, but when this accent comes on the subject noun phrase *hæva* ‘weather’ as is the case in (6), it makes this word the only pitch accent of the utterance and gives the utterance a reason/cause reading. The utterance could be employed, for instance, in response to a *why*-question such as, *Why didn’t you go out?*, even though there is no explicit word meaning ‘because’ used in it.

As has been demonstrated in this paper, the function of the new NPA location in the CC is different from the above cases, as it is to bring about the notion of concession in the sentence and to create grounds for the addition of a contradictory alternative. This new NPA acts as a morpheme, whose function is to prepare the hearer to expect a concessive viewpoint to appear in the discourse. This morpheme, however, is location-bound and needs to be on the last word of the utterance, a word which does not have an AP status if that utterance is a normal declarative.

6. Conclusion

The construction studied in this paper, the concession construction or CC, is employed in Persian to add a contradictory or alternative comment to the previous discourse. This previous discourse may be either a physically produced utterance or unuttered shared information in the minds of the interlocutors. It was shown that the CC is realized in structures that are nuclear accented on a non-final element, i.e., copular constructions, the pluperfect, the passive, compound verbs, and bare nominals, and that it can occur in both monoclausals and biclausals. The CC is normally formed by the addition of an accentual phrase on a final verbal constituent, which will bear the nuclear accent, followed by either a low or a high boundary tone. In non-verb-final scrambled sentences, however, no accentual phrase is added due to the constraint that post-verbal elements in Persian are not stressed. It was argued that in spite of similarities between the CC and two other structures, the adversative coordinated structure and narrow focus, it is in fact distinct from them. Given the intonational characteristics of the CC, the nuclear pitch accent in this construction can be considered an intonational morpheme possessing a distinct

meaning, but a location-bound morpheme which has to occur on a certain accentual phrase.

Abbreviations

AP = accentual phrase, CC = concession construction, DUR = durative, IND = indefinite, IP = intonational phrase, NPA = nuclear pitch accent, PCL = particle, PL = plural, PRS = present, PST = past, PTCP = participle, SG = singular, SM = specificity marker, The equal sign in the examples marks a clitic boundary

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