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Research Paper

Representation of Information Structure in Persian Spoken Genres: Syntactic devices in focus

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Abstract

There is scarce systematic research on the role of genres and their associated discourse features in Information Structure and its syntactic representations in Persian. The current descriptive, corpus-based study, therefore, aimed to investigate three different genres of Persian spoken language; that is, political, scientific and daily conversation, in terms of their Information Structure as realized through four syntactic devices of clefting, pseudo-clefting, passive and preposing. To this purpose, 1000 different utterances related to each of the mentioned genres, were extracted from the multi-media archive of IRNA (Iranian News Agency) website and daily conversations of the researchers' family members and friends, based on Lambrecht's theoretical framework in modeling the Information Structure. The collected data were then transcribed, the syntactic devices were identified, and descriptive statistics were used to see how the above syntactic devices are represented in each genre type. The results revealed that the devices are represented differently in the three genres of political, scientific, and daily conversations. This finding may be of interest to linguists and language theoreticians.

Keywords: *Information Structure, Clefting, Genres, Passive, Preposing, Pseudo-clefting, Syntactic devices*



Introduction

Information Structure is one of the issues that have been considered in various linguistic approaches. Studies on this topic have shown that there are some devices to represent the Information Structure at different levels of language, from phoneme to word and sentence and even larger units. At the phonetic level, the speakers can emphasize a part of their message as new information by using devices such as pauses and pitch, and present it to the audience as they wish. In addition to phonetic devices, the marked syntactic structures that change the unmarked structure of a sentence are also used by language speakers for this purpose.

According to Lambrecht (1996), "Information Structure is "that component of sentence grammar in which propositions as conceptual representations of states of affairs are paired with lexico-grammatical structures in accordance with the mental states of interlocutors who use and interpret these structures as units of information in given discourse contexts (p:5)." It must be remembered that Information Structure has different syntactic representations in language, since "the speaker is obliged to chunk his speech into information units. He has to present his message in a series of packages. He is, however, free to decide how he wishes to package the information. He is free to decide where each information unit begins and ends, and how it is organized internally" (Halliday, 1967 as cited in Brown, Brown, Brown, Gillian, & Yule, 1983: 155).

In this respect, Halliday (1985) divides a clause into a theme and a rheme. The theme can be identified as that element which comes in first position in the clause, whilst the rheme is the remaining part which develops the theme (Halliday, 1985:39). However, the two notions of given and new information are addressee-oriented; what is known and predictable for him/her and what is new and unpredictable. In other words, "new information is information that the addresser believes is not known to the addressee, and given information is information that the addresser believes is known to addressee (either because it is physically present in the context or because it has already been mentioned in the discourse)" (Brown et al., 1983).

In this way, the speaker or writer begins his/her sentence with the theme, that is, what he/she is talking about, which in the case includes already known information, but expresses new information about this subject in the news section of rheme. Therefore, the old information is expressed at the beginning of the sentence and then the new information. But in many cases this order is changed with syntactic devices to emphasize more on a particular structure. These devices are clefting, pseudo-clefting, passive and preposing, which the following sentences represent:

- 1- The Mongols destroyed the city.
- 2- The city was destroyed by the Mongols. (Passive)
- 3- Davood broke the glass with a stone yesterday.
- 4- It was Davood who broke the glass with a stone yesterday. (cleft)
5. The one who broke the glass with a stone yesterday was David. (Pseudo-cleft)
- 6- Ali lost his book.
- 7- Ali's book was lost. (Preposing)

Each of these syntactic devices of Information Structure has its own application. Undoubtedly, the type of discourse and its specific genre are different in this respect. In other words, the application of a structure such as passive in the Persian political speech genre may be different from its application in academic scientific speech. And this is definitely influenced by the purpose of the speakers.

Based on what was stated above, the following research question was addressed in the current study:

RQ. How is information structure represented through syntactic devices in three Persian spoken genres-- political, scientific and daily conversation?

Literature Review

Theoretical Background

There are a number of foundational works that provide valuable background information on Information Structure from different theoretical perspectives. The most widely cited source on Information Structure, and the best known, in research from different theoretical perspectives is Lambrecht 1994, which introduces the important distinction between the mental representational aspects of information units, on the one hand, and the relational nature of Information Structure categories in information transfer, on the other. The seminal articles Chafe (1976) and Krifka (2008) and the handbook articles Büring (2007), Gundel and Fretheim (2004), also give concise overviews of Information Structure, the cognitive function and basic categories of Information Structure, and the effects of Information Structure on the structure of linguistic utterances. Of historical interest is Halliday (1967), which introduced the term Information Structure to linguistics. Another important monograph discussing the linguistic structure of sentences in relation to Information Structure, context, and the knowledge states of interlocutors is Erteschik-Shir (2007), whereas Dik (1997) is a classical overview from a communication-based, functionalist perspective. The online Oxford Handbook of Information Structure (Féry & Ishihara, 2014) provides the most comprehensive overview of Information Structure to date.

Gabelentz and Loebe (1843) developed a theory of psychological subject and psychological predicate, applying the traditional Aristotelian dichotomy to the temporary psychological states of the interlocutors. They were also the first to notice the interconnectedness of Information Structure and discourse context, as shown by Paul's use of the question–answer test to show different configurations of subject and predicate. The growth of Gestalt psychology at the turn of the centuries, with its insistence on the perceptual dichotomy between figure and ground, triggered further interest in Information Structure. The idea that human subjects are capable of understanding foregrounded objects only by relating them to their background naturally relates to the theory of psychological subjects and predicates. The decisive move from psychology to linguistics was undertaken by the linguists of the Prague School, especially Mathesius (1883), who used the categories derived from psychology and philosophy to account for phenomena of word order variation and prosody. The subject–predicate division was replaced by that of theme and rheme (later topic and comment, or topic and focus). The Praguean ideas of Information Structure were disseminated in the wider linguistic community through the work of Halliday (1967), who modified and refined the notion of theme–rheme partition. On his view, Information Structure (the term was coined by Halliday) is a component of grammar separate from syntax and semantics, but it interacts with both in a number of complex ways. From the early 1970s, Information Structure has become an integral part of many grammatical theories and a frequent research topic in descriptive linguistics.

Information Structure Frameworks

Chafe (1976) has developed a framework in which many of the notions discussed above have been systematized for the first time. His work has spawned a number of approaches which share the view that Information Structure needs to be linked to the communicative and psychological reality of language users, no matter whether it is considered a proper part of grammar or a communicative, pragmatic phenomenon influencing grammar (e.g., Lambrecht,

1994; Vallduví, 1992; Van Valin Jr, 2005). Important developments in this line of research are Vallduví's (1992) application of file change semantics to information-structural phenomena, where knowledge is conceived of as a set of file cards which get activated and deactivated, and Lambrecht's (1994) explicit embedding of Information Structure in the Stalnakerian model of communication.

Another line of research was conceived in the generative framework, most notably by Jackendoff (1972). The principal purpose is to find a way how categories like topic and focus can be represented in grammatical description so as to account for the range of grammatical structures influenced or triggered by Information Structure in a maximally economical way. A device that has been used almost universally to achieve this aim is the representation of information-structural categories as grammatical features (F-feature for focus was introduced by Jackendoff (1983) himself, which triggers word order permutations and determines sentence stress assignment and similar phenomena. Further developments include the postulation of dedicated hierarchical positions for topic and focus (Rizzi, 1997) and optimality-theoretical accounts of the interaction of the focus feature with sentence structure (Büring, 2006). In recent years, important attempts have been made to formalize the relationship between discourse structure and Information Structure (Roberts, 2012). The basic idea is that the discourse develops through a series of implicit questions under discussion. The Information Structure relates the utterances to these underlying questions and thus renders the discourse structure transparent.

Halliday (1967), in his foundational article, introduced the notion of Information Structure in a systematic treatment of contextual factors and prosody. The different accent patterns of English sentences are derived from the complex interaction of two information structural levels: given-new (= information focus) and theme-rheme.

Lambrecht (1994), combined formal and functional approaches to grammatical analysis in his framework. He provided a detailed discussion of topic and focus, the mental representation of discourse referents, and their effect on the structure of linguistic utterances, and distinguished between the referential and mental properties and the inherent relational nature of topic and focus.

Samko (2016), in his dissertation examines the relationship between form and function in VP-initial word orders in English through Minimalist model of syntax. The analysis is built on a close examination of patterns which are instantiated across hundreds of inversions in hundreds of contexts. The approach leads to several important insights into the relationship between syntax and pragmatics and the overall picture that emerges is one in which the syntax makes both direct and indirect reference to discourse context.

Banon and Martin (2019), used event-related potentials to investigate the role of prediction in the processing of Information Structure and to examine the assignment of Focus, which represents information that is new or relevant to the discourse. They investigated the contribution of prediction to focus assignment in a design manipulating the phonological properties of focused nouns and their preceding articles.

Jiménez-Fernández (2020), in her book, *Syntax-Information Structure Interactions in the Sentential, Verbal and Nominal Peripheries*, considers the connection between Information Structure and syntax, exploring formal explanations to account for the distribution of discourse-based phenomena such as topic preposing and focus fronting across languages, with a particular focus on English and Spanish. She discusses issues such as word order and the diverse conditions under which types of topics and foci are licensed in different contexts. She shows the different behaviors of languages with respect to specific discourse-oriented operations to be the

consequence of feature inheritance, which takes place in the different peripheries detected in the sentence.

Herdiana, Hidayat, Alek and Husna (2020), showed how certain new and given information as Information Structure of syntactic forms are revealed in Barack Obama's remarks in Jakarta. They analyzed the syntactic forms of article "a" (indefinite) and "the" (definite) and also the rhyme and theme of the script and the video of the remarks using close textual analysis. Their results indicate that the uses of these articles construct certain messages whose tones are either distancing, getting close, or neutralizing the speaker against the audience. Furthermore, the information contained in Obama's speech reflected the context-awareness of the speaker and also the audience.

Method

Design of the Study

This qualitative study is corpus-based, with descriptive-comparative design. This design is used to observe what occurs naturally; that is, when little is known about a specific phenomenon, descriptive or exploratory studies are utilized to observe, describe, and document different aspects of a phenomenon. The present research makes use of a descriptive method to compare the use of four different syntactic devices of Information Structure: clefting, pseudo-clefting, passive and preposing, used in three different Persian spoken genres: political speech, scientific speech and regular daily conversation.

Corpus of the Study

For the purposes of the study, the corpora for scientific and political genres were collected from the multi-media archive of IRNA (Iranian News Agency) website. For daily conversation, everyday talks of the researchers' family members and friends were recorded and transcribed.

Model of the Study

This study followed Lambrecht's (1986, 1994) in modelling the Information Structure. According to this model, the study of Information Structure is actually investigating how a speaker organizes a sentence so that it can relate *new* information to the *given* discourse context by being informed of the presuppositions. In this way, it is believed that different languages are equipped with different morphology, syntactic, and phonetic devices to represent Information Structure.

Instruments

The applied instruments to collect data for daily conversation genre were two different voice recorders--Samsung MP4 player and an Iphone XS cell phone. To answer the posed research question, descriptive statistics were used. Chi-square was also run to investigate whether there was a statistically significant difference between the distributions of frequency of each syntactic structure in all three genres under investigation.

Procedures

Data Collection Procedures

In the data collection process for the purposes of the study, 3000 utterances were extracted from the two sources mentioned above, in the form of three spoken genres. For the political genre, a total of 1,000 utterances were randomly selected from the speeches of 4 Iranian political figures who were native speaker of Persian, with the average age of 50-70. For the scientific

genre, 1000 pieces of utterances were randomly selected from the scientific lectures of 4 native Iranian researchers, with the average age of 40-60, from both male and female genders. It is to be noted that to eliminate the effect of changes which might have occurred due to the change of language use during the time, all the selected lectures were chosen from among those published within the period of 2015 to 2020. Regarding everyday conversation, the daily conversations of the researcher's family members and friends were recorded with their permission and thus, 1000 pieces of utterance were randomly selected and transcribed. To make sure that the results of the study would definitely be representative of the selected population, such variables as age, gender, language, culture, and background knowledge were controlled.

Data Analysis Procedures

Since this research aimed to investigate the representation of the syntactic structures of Information Structure (i.e. clefting, pseudo-clefting, passive and proposing) in three different genres, in the 1000 different utterances related to each genre, the syntactic devices were identified first, and then the most frequently-used syntactic structures of Information Structure in each genre were counted for final interpretation.

Results

The results obtained from the analysis of the data are reported in the Tables below.

Table 1

Representation of Different Syntactic Structures in Political Texts

	Preposed Structures	Passives	Cleft Sentences	Pseudo-clefts
Frequency/Percentage	68	103	73	126

In Table 1, in the political genre of spoken Persian, the highest number of syntactic devices belong to pseudo-clefts ($f = 126$), with passives occupying the second rank ($f = 103$, followed by cleft sentences ($f = 73$) and preposed structures ($f = 68$).

Table 2

Representation of Different Syntactic Structures in Scientific Texts

	Preposed Structures	Passives	Cleft Sentences	Pseudo-clefts
Frequency/Percentage	76	116	29	85

In the scientific corpus, passive structures received the highest frequency ($f = 116$), and the second highest frequency was that of pseudo-clefts ($f = 85$). Proposed structures stood in the third position ($f = 76$), and cleft sentences had the lowest frequency ($f = 29$).

Table 3

Representation of Different Syntactic Structures in Daily Conversations

	Preposed Structures	Passives	Cleft Sentences	Pseudo-clefts
Frequency/Percentage	109	34	21	69

Here, a large number of preposed structures ($f = 109$) are seen, while the frequencies for passives ($f = 34$) and cleft sentences ($f = 21$) were distinctively lower. Pseudo-cleft sentences in this corpus were found to receive the frequency of 69.

Comparisons among the three spoken Persian genres and among the different types of syntactic devices are provided below.

Differences in the Representation of Syntactic Structure in the Corpora

What follows is an attempt to make comparisons among the three different genres, and among the four different structures in each genre. Table 4 below shows the representation of preposing, passives, clefting, and pseudo-clefting for the three genres of political, scientific, and daily-conversation spoken Persian, and Table 5 presents the results of chi-square for independence, examining whether the differences among the three genres were considerable enough to reach statistical significance.

Table 4

Representation of Different Syntactic Structures in Political, Scientific, and Daily Conversation Texts

	Preposed Structures	Passives	Cleft Sentences	Pseudo-clefts
Political Genre	68	103	73	126
Scientific Genre	76	116	29	85
Daily Conversations	109	34	21	69

Table 5

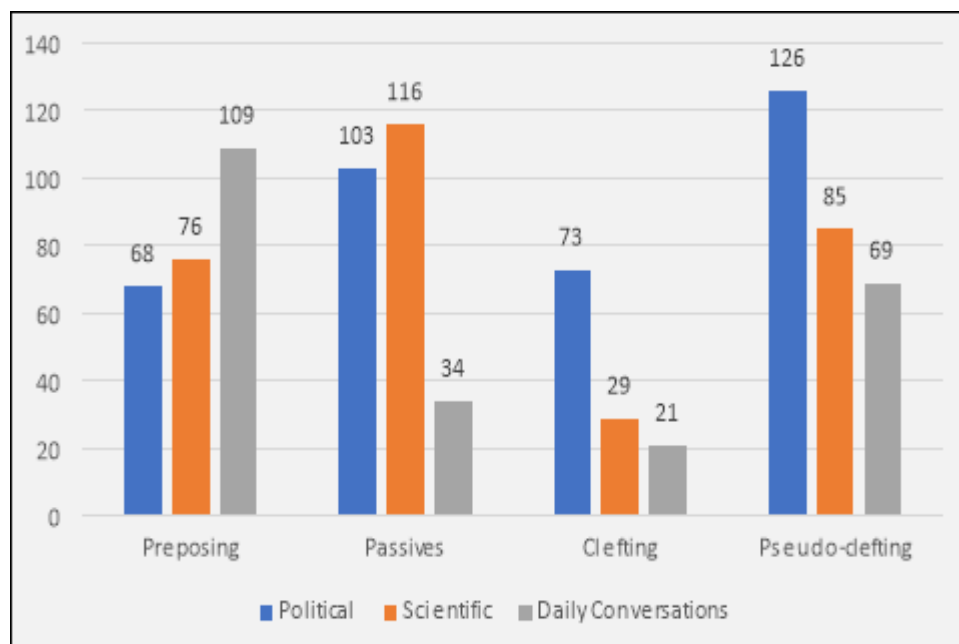
Chi-square Results for Comparing the Representation of Syntactic Structures in Political, Scientific, and Daily Conversation Texts

	Value	df	Asymptotic (2-sided)	Significance
Pearson Chi-Square	88.788	6	.000	

Likelihood Ratio	86.862	6	.000
Linear-by-Linear Association	24.389	1	.000
N of Valid Cases	909		

Figure 1

Representation of the syntactic structures in the three corpora



As mentioned above, the bar graph also shows that the four syntactic structures of preposing, passives, clefting, and pseudo-clefting were not evenly distributed in the three genres of political, scientific, and daily conversations: preposing occurred most frequently in daily conversations, passives in scientific texts, and clefting and pseudo-clefts in political texts. To compare the three genres in a pair-wise fashion in this regard, three more chi-squares were run, the results of which are merged and presented in Table 6.

Table 6

Chi-square Results for Comparing the Representation of Syntactic Structures in Each Pair of Texts

	Pearson Chi-Square Value	df	Asymptotic Significance (2-sided)
Political-Scientific	22.304	3	.000
Political-Daily Conversations	61.737	3	.000
Scientific-Daily Conversations	44.587	3	.000

As it can be observed in first row of Table 6, political and scientific genres of spoken Persian differed significantly in terms of the distribution of the four syntactic structures under examination ($p < .05$). The same results were obtained for the comparison of political and daily-

conversation genres ($p < .05$) and also for the pair of scientific and daily-conversations genres ($p < .05$).

In Table 7 below, each syntactic device is compared in a pair-wise fashion across different genres.

Table 7

Chi-square Results for Comparing the Frequencies of Different Syntactic Structures in Each Pair of Texts

Syntactic Devices	Compared Pairs	Chi-square	df	Sig. (2-tailed)
Preposed Structures	Political-Scientific	.444	1	.505
	Political-Daily Conversations	9.497	1	.002
	Scientific-Daily Conversations	5.886	1	.015
Passives	Political-Scientific	.772	1	.380
	Political-Daily Conversations	34.752	1	.000
	Scientific-Daily Conversations	44.827	1	.000
Cleft Structures	Political-Scientific	18.980	1	.000
	Political-Daily Conversations	28.776	1	.000
	Scientific-Daily Conversations	1.280	1	.258
Pseudo-clefts	Political-Scientific	7.967	1	.005
	Political-Daily Conversations	16.662	1	.000
	Scientific-Daily Conversations	1.662	1	.197

The results presented in Table 7 made it clear that for preposed structures, the difference between political and scientific texts was not statistically significant ($p = .505 > .05$), but the difference between political texts and daily conversations reached statistical significance ($p = .002 < .05$), and so did the difference between scientific texts and daily conversations ($p = .015 < .05$).

Concerning passives, there was no significant difference between political and scientific texts ($p > .05$), but the difference between political texts and daily conversations was of statistical significance, and so was the difference between scientific texts and daily conversations ($p < .05$). Concerning cleft sentences, however, political texts and scientific texts differed significantly, and the same result was also obtained for the political-daily conversations comparison, yet the difference between scientific texts and daily conversations failed to be statistically significant. Finally, in relation to pseudo-clefts, political texts and scientific texts were significantly different. Political texts, in this regard, were also significantly different from daily conversations. Nonetheless, the difference between scientific texts and daily conversations was not of statistical significance.

Discussion

It was attempted in the current study to find answer to the posed research question through analyzing the mentioned corpora on the basis of Lambrecht's (1986, 1994) model of Information Structure. The rationale behind employing this model was that it takes into consideration the fact that different devices represent Information Structure, including referential form, morphological marking, prosody and syntactic devices, and that the type and genre of language affect the use of these syntactic devices, either through optional rearrangement of constituents, or through

obligatory movement of information-structurally marked constituents to certain positions in the clause. The obtained results showed that passive structure, cleft structure and preposing have a different role in the representation of different components of Information Structures (i.e. Focus, Presupposition, Topic). The results actually reconfirmed the above-stated presuppositions of the very model of analysis in the first place, meaning that the type of syntactic devices (i.e. clefting, pseudo-clefting, passive and preposing, which are syntactic devices of Information Structure) depends on the type of language genre. This means that the model and its entities are not only applicable to English language, but also to other languages like Persian. This finding clearly displays the novelty of the current study. This finding is consistent with that of Modaresi (2007), who studied Persian Information Structure within the same framework and showed that the Information Structure of a sentence could be represented by special syntactic structures. It also confirms the overall finding of Jiménez-Fernández (2020), in her book, *Syntax-Information Structure Interactions in the Sentential, Verbal and Nominal Peripheries*, that there is a connection between Information Structure and arrangement of sentences; that is, syntax.

It should be stated here that many studies have already been conducted on Information Structure events and categories in Persian, but most of them have examined only one or two syntactic features. Rasekhi (2018), for example, provided a unified syntactic analysis for elliptical structures in Persian, with an emphasis on the interaction between ellipsis licensing feature bundles and Information Structure. Rezaei and Hooshmand (2012), studied Information Structure in interrogative sentences according to Role and Reference Grammar (RRG). Shafiei (2014) investigated postposed constituents in Persian to find out the Information Structure paradigm of such constructions. The problem with most of these studies is that they have reached conclusions on the basis of a very small sample, and there is still a lack of detailed analysis of syntactic structures and their rhetorical functions in representing Information Structure on Persian spoken genres. In fact, most of such studies, like Modaresi (2007), have reported the presence of different syntactic structures for representing Information Structure, but they did not carry out in-depth investigation on the differences among these devices in terms of the representation of Information Structure. Thus, the findings of the current study are in comparison more dependable and more generalizable.

Concluding Remarks

In the present study, the idea was not only to provide a statistical account of the differences mentioned above, but also to offer some explanations for them. The results showed that a study of the syntactic differences between the three genres under study can be usefully linked to the linguistic notion of Information Structure, meaning that by studying information packaging arrangements, we can gain added insight into why in a specific context, certain syntactic forms are preferred. The ultimate goal of the study was, in fact, to explain and interpret the observed differences between these three genres in terms of the preferred syntactic structures used in them.

The findings of the study have implications for different groups of people: 1) linguists who are interested in the study of Persian language and linguistics and the comparative analysis of Persian Information Structure, 2) experts in education who are concerned with the analysis of Persian spoken discourse for the purposes of language learning and teaching, and language theoreticians who deal with models of natural language and crave for the universals of Information Structure.

References

- Banon, J. A., & Martin, C. (2019). Anticipating information structure: An event-related potentials study of focus assignment via the it-cleft. *Neuropsychologia*, 134, 107203.
- Brown, G., Brown, G. D., Brown, G. R., Gillian, B., & Yule, G. (1983). *Discourse analysis*: Cambridge university press.
- Büring, D. (2007). Semantics, intonation and information structure. *The Oxford handbook of linguistic interfaces*, 445474.
- Chafe, W. (1976). Givenness, contrastiveness, definiteness, subjects, topics, and point of view. *Subject and topic*.
- Dik, S. C. (1997). *The theory of functional grammar: the structure of the clause*: Walter de Gruyter.
- Erteschik-Shir, N. (2007). *Information structure: The syntax-discourse interface* (Vol. 3): Oxford University Press.
- Féry, C., & Ishihara, S. (2014). *The Oxford handbook of information structure*: Oxford University Press.
- Gabelentz, H. C., & Loebe, J. (1843). *Ulfilas: Veteris et Novi Testamenti versionis gothicae fragmenta quae supersunt ad fidem codd. castigata, latinitate donata, adnotatione critica instructa, cum glossario et grammatica linguae gothicae coniunctis curis* (Vol. 2): apud FA Brockhaus.
- Gundel, J. K., & Fretheim, T. (2004). Topic and focus. In Horn, Laurence R. & Ward, Gergory (eds.), *The handbook of pragmatics*, 175–196. In: Oxford: Blackwell.
- Halliday, M. A. (1967). Notes on transitivity and theme in English: Part 2. *Journal of linguistics*, 3(2), 199-244.
- Halliday, M. A. (1985). *An Introduction to Functional Grammar* [MJ. Lond: Edwa~ Arnold, 1, 994.
- Herdiana, H., Hidayat, D. N., Alek, A., & Husna, N. (2020). GIVEN AND NEW INFORMATION IN BARACK OBAMA'S REMARKS: A SYNTACTIC FORM ANALYSIS. *Journal of Languages and Language Teaching*, 8(4), 458-464.
- Jackendoff, R. S. (1972). *Semantic interpretation in generative grammar*. MIT press.
- Jackendoff, R. S. (1983). *Semantics and cognition* (Vol. 8): MIT press.
- Jiménez-Fernández, Á. L. (2020). *Syntax-information structure interactions in the sentential, verbal and nominal peripheries*: Cambridge Scholars Publishing.
- Krifka, M. (2008). Basic notions of information structure. *Acta Linguistica Hungarica*, 55(3-4), 243-276.
- Lambrecht, K. (1994). *Information structure and sentence form: Topic, focus, and the mental representations of discourse referents* (Vol. 71): Cambridge university press.
- Lambrecht, K. (1996). *Information structure and sentence form: Topic, focus, and the mental representations of discourse referents* (Vol. 71): Cambridge university press.
- Mathesius, V. (1883). *O potenciálnosti jevů jazykových*. nákl. Královské České Společnosti Nák.
- Modaresi, B. (2007). *Information Structure and its Representation in Persian*. *Unpublished Ph. D. dissertation*. University of Tarbiyat Modares.
- Rasekhi, V. (2018). *Ellipsis and information structure: Evidence from Persian*. State University of New York at Stony Brook.
- Rezai, V., & Hooshmand, M. (2012). Focus Structure in Persian Interrogative Sentences: An RRG Analysis. *English Language Teaching*, 5(8), 130-145.
- Rizzi, L. (1997). The fine structure of the left periphery. In *Elements of grammar* (pp. 281-337): Springer.

- Roberts, C. (2012). Information structure: Towards an integrated formal theory of pragmatics. *Semantics and Pragmatics*, 5, 6-1-69.
- Samko, B. (2016). *Syntax & information structure: The grammar of English inversions*. UC Santa Cruz.
- Shafiei, S. (2014). Postposing and Information Structure in English and Farsi/Persian. *Romanian Journal of English Studies*, 1(11), 48-55.
- Vallduví, E. (1992). *The information component*. University of Pennsylvania. PhD Dissertation dissertation,
- Van Valin Jr, R. D. (2005). *Exploring the syntax-semantics interface*: Cambridge University Press.