

Mixed Approach in Syntax: Evidence from Persian

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Abstract—This paper sheds new light on Persian Linguistics; meanwhile to criticize the traditional trends pushed theoretical linguistics formal approach) and applied linguistics (Functional approach¹) part; as well as welcome the evidence and opportunities that this mixed approach provide for bringing them together. This model of analysis will be known as a mixed model that can achieve more comprehensive responses for Persian diversities than considering each approach in isolation. They're both are vital for Persian syntactic analyses; they are complementary. Relying on each approach is misleading. The main objective is to support this claim by evidence from Persian Language. The Persian evidence shows the constraints and varieties in this language is not only originated from syntactic principles, but also they are greatly motivated by pragmatic considerations. Therefore the variety of syntactic structures such as wh-constructions, sluicing, ditransitive verbs and obligatory adjuncts can not be determined or stipulated by the absolute formal constraints. As an evidence the first group of constructions will be discussed.

Index Terms—formal approach, functional approach, mixed approach, Persian language

I. INTRODUCTION

The study of syntax is a huge field that has generated a great deal of theoretical and applied work over the decades (Chomsky 1957-2013, Givon2001, Goldberg 1995-to appear, Chung et al 2011). Different theories of syntax were raised in the linguistic landscape; however, some of them have considerable members. Syntactic theories are generally classified into two main types, formal and Functional. In other words, most of the syntactic explanations are strongly based on these two different approaches. In formal analysis, linguistic researchers focus on linguistic form e.g. grammatical structures and the hierarchical relations of the phrases, clauses and sentences. This purely formal explanation of sentence structures merely considers the syntactic categories and structural relationships among the words of a sentence without considering their discourse functions or the context. The dominant theory in this field is Chomsky's in which syntax is autonomous and grammatical knowledge in a speaker's mind is divided into different modules or components, which separates the linguistic knowledge from its meaning and communicative use in context. By contrast Functional analysis emphasize on the functions of linguistic patterns. They analyze the sentence structures in terms of factors outside the form of the structure. They deny the existence of everything in syntax. This division between these two approaches was supported by the majority of linguists. Meanwhile These two rather different approaches are constituents of two broad branches of science in linguistics which are theoretical and applied linguistics.

For many years, these two main types of linguistics had been separated and considered apart. This dichotomy thinking may be remarkably issued by Ferdinand de Saussure (1972). While the different ways linguists see formal and Functional approaches, the author agrees with the following idea from known people:

Bourdieu (1988) believes that *Theory without empirical research is empty, empirical research without theory is blind* (p.774-775).

Dabir- moghaddam (2009) thinks, *If we want to obtain a comprehensive grammar we should attempt to be faithful to the[real] data rather than being faithful absolutely to the theories*(p. 68).

Newmeyer(2010) writes *One can be a formal and functional linguist at the same time without being any contradictions* (p. 133).

In spite of these critical thinking and challenges, most of the linguists believe distinction between them actually covers many various aspects worth considering separately. Pure/radical formal approach is primarily interested in the form itself. Pure/radical functional approach is primarily interested in the function and the content that the linguistic structures have outside in the world.

There are numerous cases in Persian language that show they need one another to fulfill their explanations. It will be argued that Functional explanations are absolutely necessary for verification of acceptability degrees in wh-constructions in Persian. To have an actual and comprehensive analysis, interactional/bi-dimensional approach is unavoidable.

¹ The difference between functional and Functional should be mentioned here. In this paper, Functional with capital F refers to all approaches and theories which are contrast to Formal approaches such as cognitive, discourse, information structure and typological explanations. For more information you can refer to Croft (2001).

Thus the proponents of non-radical version of two approaches; in particular interactional model, believe that they are able to interact and learn from one another. They can feed each other. This opinion is witnessed by increasing interest in discourse phenomena (Rizzi 1997, Newmeyer 1998, Karimi 2005, Karimi & A.Taleghani 2007, Dabir-moghaddam 1992).

In fact, this situation is considered as a state of complementary condition rather than as a state of a competition and relying on each is inadequate. Persian evidence can show that formal explanation can find its another side of responses in the interaction of discourse/ pragmatics. In this sense, the dichotomy view between these two approaches will make little sense. In this view these two poles come together in a point to fulfill each other.

This paper is organized as follows: Section 2 the arguments on wh- constructions will show that considering the absolute syntactic constraints to discuss the grammaticality or acceptability judgments of the sentences are insufficient. In section3, it will be discussed the Persian evidence from Functional perspectives in order to show that the formal analysis can be fulfilled by Functional analysis. Then both approaches will be evaluated to answer this question whether the formal explanation is sufficient or not. To illustrate that, two competing approaches on wh- constructions will be taken as evidence in this language.

II. FORMAL EXPLANATION

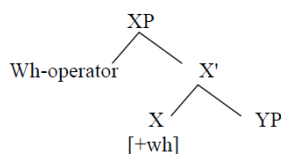
In this section, it generally outlines the properties of formal explanations on wh-questions. An explanation is formal if the properties of sentence structures are derived from a set of principles formulated in the generative syntax (in particular Minimalism). Regarding formal explanations the following structures in Persian will be evaluated.

A. Wh-questions

- (1) a. Maryam ketaab raa xarid.
 Mary.subj book.obj obj M buy.PST²
 'Mary bought the book.'
 b. Maryam chi/chi-o xarid?
 Mary.subj what/obj.M buy.PST
 ' Mary bought what?'
 c. Chi- o Maryam xarid?
 What- obj M Mary buy.PST
 ' What did Mary buy?'

The examples in (1) show that the question form is derived from declarative sentence (1a) in two ways: - one by remaining of wh-word in its same position in declarative sentence(no overt movement of wh-word). – second by movement of the wh-word from its first position into the front of the sentence(overt movement).

The theory of universal grammar provides a mechanism for carrying out such cases(1b,1c). It is a feature based theory in which the feature [+wh] must be satisfied by a wh-operator in the spec- head configuration. In Chomsky's theory this is called Wh-criterion(Rizzi 1991,1996) or wh- movement(Chomsky 1995,2000,2008).



Thus wh- criterion or wh movement helps to account for the syntax of example (1c). The landing site of the wh-word was discussed; on the basis of Rizzi (1997) in the split Cp it goes to the Focus Phrase in Persian³. This general principle formulated for the internal structure of non-declarative sentences.

On the basis of this criterion/assumption we consider another example in (1b). This sentence should be unacceptable because there is no wh-operator in the specifier of the Focus phrase in this language. Is this type of sentence falsify this rule?

In this type of grammar we can hypothesize that a covert movement of an operator in this type of language will satisfy the feature [+wh]. This movement is constaint by distance in this grammar; that is the locality condition (minimal link condition, shortest move) constraints this movement. This movement does not only belong to simple sentences, it can be in complex sentences too. Consider this example:

- (2) a. Ki-o (to) fekr mikoni (ke) Ali be mehmuni davit kone?
 Who-objM you.subj think.pres that Ali.subj to party invite.pres
 'Who do you think Ali will invite to the party?'
 b. [ki-oi [to [fekr mikoni [t'i ke [Ali [ti be mehmuni [davit kone]]]]]]]

² Category symbols are as follows: subj= subject obj.M= object marker PST=past tense

³ Our discussion is not the landing site, so we leave it here, for further reading you can refer to karimi & A.Taleghani 2007, Kahnemuirpour 2001, Ahangar 2006, Vaezi 2010.

In (2b) *wh-* operator moved from the complement clause in successive cycles to the front of the sentence. The subjacency condition / minimal link condition / shortest move was obeyed too. Generative grammar introduced this principle as a universal one. This idea comes into the mind that this principle can verify grammaticality / ungrammaticality of the sentences.

However it will be shown that in Persian it won't happen and this universal principle will not be sufficient for the Persian sentences.

B. Criticism of Formal Explanation

The only question in this section should be answered is whether formal explanation is necessary and whether it is sufficient. To get the response, first we discuss the necessity of generative syntax and its constraints by some evidences from Persian language.

The first was whether it is necessary or not. To support this claim that the existence of formal explanations is necessary, some examples will be provided from displaced phrases in Persian:

(3) Questions: *ki - o fekr mikon i ke u ---- dide baashe?*

Who-ACC think.pres you-sing that he ---- saw
'Who do you think he saw?'

(4) Relative clause: *Man mardi raa ke shoma -----dided mishenaasam.*

I the man obj.M that you ----- saw know
'I know the man you saw.'

(5) Topicalization: *ketaab -o u---- be Ali daad.*

Book the he to Ali gave
'The book, he gave to Ali.'

In each type, a phrase was displaced from its normal position in phrase structure, creating a dependency between itself and co-indexed gap as indicated by '----' in(3-6).Some linguists know these constructions as filler-gap constructions(Ambridge & Goldberg 2008). The best and reasonable stipulation is the subjacency principle which generativists believe it is a universal principle (Newmeyer 1991). It constraints the *wh-* movement in its structure. It says: no movement over more than two bounding nodes, if it happens the sentence should be ill-formed.

(6)* *Who did you believe the claim that John saw----?* (Newmeyer 2010: 9)

Ross (1967) introduces the islands that constraints the movements in the structures. Complex Noun Phrase was converted as Subjacency in modern syntax. *The claim that John saw* is a complex noun phrase that *wh-*phrase can not be extracted from that. Or the bounding nodes IP and NP prevents this movement. As it is a universal principle should be uniform for all of the structures in a language.

To answer the second question whether the formal explanation is sufficient, we will argue more examples from Persian. Three types of verbs are taken for this goal:

a) Bridge verbs (are verbs that their meaning is so explicit) such as think, say, believe.

b) Factive verbs (are verbs that their complements are presupposed) such as understand, regret.

c) Manner of speaking verbs (are verbs that show the speaker's status of speaking) such as whisper, murmur, scream, cry.

(7) a. *man fekr mikonam [ke Ali Maryam -o dide baashe].*

b. *Ki- o fekr mikoni ke Ali ----- dide baashe?*

(8) a. *man faryaad zadam ke [Maryam ketaab -o borde].*

b. *?? chi -o faryaad zadi ke [Maryam ----borde ast?*

(9) a. *man fahmidam ke [Ali maashin xaride ast].*

b. *?? chi -o fahmidi ke Ali ----- xaride ast?*

(10) a. *man faryaad zadam ke [Ali Maryam raa dide ast].*

b. ** ki -o faryaad zadi ke Ali ----- did east?*

(11) a. *man fahmidam ke [Ali Maryam raa dide ast].*

b. ** ki-o fahmidi ke Ali ---- dide ast?*

In these sentences (7-11) all the formal structures are the same; however the extraction of *wh-*phrase shows different degree of acceptability. Examples (8b-11b) have lower degree of acceptability and grammaticality than sentence (7).

Thus the answer is that formal explanation is not sufficient for these type of sentences in Persian. Here, to stipulate the acceptability and grammaticality of others, Functional explanation is needed. Relying on the absolute syntactic and formal constraints are not sufficient. To verify this claim we will argue on these sentences in the following section.

III. FUNCTIONAL EXPLANATIONS

In this section, the extraction of *wh-*words is examined to support the idea that semantic and pragmatic considerations can influence on *wh-*extractions from the complements of bridge verbs, factive verbs and manner of speaking verbs.

Wh movement is one of the controversial topics in formal linguistics. It was considered by many formal linguists. On contrary to formal explanations, relying on pure syntactic principles is not sufficient to answer a language diversity. The objective is to show how wh-constructions operate after different types of verbs.

Long wh-extraction can be explained by passing the cycles from one clause to another one. In this usage based approach, such extraction relies on the type of information included within the complement clause. Subjacency condition that is one the formal principles, can not interpret the diversity in wh- extraction from the complement clauses. In this approach, the acceptability of wh- extractions can be predicted by discourse/ pragmatic properties and its information(Ambridge and Goldberg 2008: 350).

During the development of construction grammar, the constructionists intend to differentiate their method from formal one, they use *filler- gap construction*, in which a constituent taken a movement. This type of construction is included three types:

- wh-Qs

- Relative clauses

- Topicalization

(12) *ki* -o fekr mikoni ke u ---- dide baashed ? (wh-Qs)
Whom.ACC think that he.NOM.3 visit
'Whom do you think he visited?'

(13) Man mardi raa ke shomaa ----didid , mi shenaasam.(Relative clauses)
I.NOM.1 man.ACC OBJM that you saw know
'I know the man that you saw.'

(14) Ketaab-o u ----- be Ali daad. (Topicalization)
Book.ACC he.NOM.3 ----to Ali.ACC gave
'The book, he gave to Ali'

In examples (12-14), one of the constituents has moved from the basic place and landed in another position. In wh-constructions which is the subject of this paper, wh-word has moved out of the complement clause and landed at the beginning of the main clause (example12). *Filler* refers to wh-word, and *Gap* refers to the empty place remained after wh-movement. Thus wh-word is a filler has moved from its position and landed at the beginning of the clause. The first position is considered as a gap (Ambridge and Goldberg 2008: 351).

A complement as an island and its relation to information structure

Ross (1967) first observed some constraint and introduced *island* term. He introduced the island complements to show what constraints are imposed on the operation of the constituents within the complement clauses. The island notion (which later included in *subjacency* constraint) is regarded in this analysis. In this type of analysis, being an island is related to information structure. The following discussion consists of four sections: first, the islands are introduced in Persian. Second I provide some evidence to support this idea that the diversity of wh- constructions can not be determined by the pure syntactic constraints. Third, the negation test is used to confirm that the island complements included background information. Finally, it specifies the general conclusion and the frequency of verbs in Persian. The frequency of verbs can confirm the hypothesis and the operation of wh- constructions in this language.

1. Subjacency Constraint

One of the constraints introduced in Generative Grammar, that restricts the extraction of wh-words is subjacency. On the basis of this constraint, the gap can not be separated from the filler by two or more *bounding nodes*. The formalists regards this constraint a universal one (Newmeyer 1991). The subjacency account predicts that complex NP, subject and all adjuncts should be islands. However it can not predict the various types of verbs in relation to their complements. In this study three types of verbs are looked into:

a. *Bridge verbs* – the main verb is a semantically light such as fekr kardan (to think), goftan (to say), Bavvar kardan (believe).

b. *Factive verbs* – their complements are presupposition such as fahmidan (to understand)

c. *Manner of Speaking verbs* – they show the way of speaking such as zemzemeh kardan (to whisper).

These three types can have a complement clause in Persian. The considerable subject of them is that the extraction of wh- word from the complements of these three types of verbs are different. The hypothesis is that in spite of the sameness of the structure, their extraction of wh-word is different. Thus in the analysis of these types of sentences, absolutely relying on subjacency and ignoring the information factors misleads the analysis. For example:

(15) a. Man fekr mikonam ke Ali *Maryam raa* dide baashad.
I.NOM.1 think that Ali.NOM.3 Maryam .ACC see
'I think that Ali has seen Maryam.'

b. *ki-o* fekr mikoni ke Ali ----- dide baashad?
Whom.ACC think that Ali.NOM.3 see
'Whom do you think that Ali saw?'

(16) a. Man faryaad zadam ke Maryam ketaab raa borde ast.
I. NOM.1 shout that Maryam book.ACC take
'I shouted that Maryam took the book.'

- b. ?? *Chi-o* faryaad zadi ke Maryam ----- borde ast?
What.ACC shout that Maryam.NOM.3 take
'What did you shout that Maryam took?'
- (17) a. Man *fahmidam* ke Ali *maashin* *kharide ast*.
I. NOM.1 understand that Ali.NOM.3 car buy
'I understood that Ali bought the car.'
b. ?? *Chi-o* fahmidi ke Ali ----- kharide ast ?
what.ACC understand that Ali buy
'What did you understand that Ali bought?'
- (18) a. Man *faryaad zadam* ke Ali *Maryam raa* *dide ast*.
I. NOM.1 shout that Ali Maryam.ACC see
'I shouted that Ali saw Maryam.'
b. * *ki-o* faryaad zadi ke Ali -----dide ast ?
whom shout that Ali see
'Whom did you shout that Ali saw?'
- (19) a. Man *fahmidam* ke Ali *Maryam raa* *dide ast*.
I. NOM.1 understand that Ali Maryam.ACC see
'I understood that Ali saw Maryam.'
b. * *ki-o* fahmidi ke Ali -----dide ast ?
whom understand that Ali see
'Whom did you understand that Ali saw?'

Examples (15-19) show their formal structures are the same; however, the wh- extraction regarding subjacency represents some differences. Examples (16b-19b) in the comparison to example (15b) are either ungrammatical or unacceptable. Thus the evidence show relying on subjacency is not adequate, and this constraint predicts the diversity of wh-extraction. Constructionists emphasize on their propositional content and analyze them (Ambridge & Goldberg 2008: 351). To argue this constructional differences in these sentences are shown in two ways:

1- One of the tests is used to show these types of differences are to add complement clause after the related verbs. The complement clause is added after the verbs such as factive verbs and manner of speaking.

- (20) a. U faryaad zad [ke Ali rafte ast]
He. NOM.3 shout that Ali go
'He shouted that Ali has gone.'
b. U faryaad zad.
He.NOM.3 shout
'He shouted.'
c. U [esm e Ali raa] faryaad zad
He. NOM.3 name Ali.ACC shout
'He shouted his name.'
- (21) a. U fahmid [ke Ali rafte ast]
He.NOM.3 understand that Ali go
'He understood that Ali has gone.'
b. ? U fahmid.
He.NOM.3 understand
'He understood.'

In example (20) verb *faryaad zadan* (to shout) as a manner of speaking verb shows three cases. This type of verb can be with a complement clause, noun phrase and without a complement clause. In example (21) verb *fahmidan* (to understand) as a factive verb, takes a complement clause. However, the omission of this clause after the verb is measured different acceptability.

2-The second way to argue the constructional and structural differences among sentences (15-19) is to add a noun phrase like '*the fact*' and '*the idea*' to the sentence. Kiparsky & Kiparsky (1971) used this way to determine whether a complement clause is an island or not. This noun phrase should be added before the complement clause. It's named as '*Silent NP*'. For example:

- (22) a. U [in haqiqat raa ke Ali Maryam raa dide ast] fahmid.
He. NOM.3 the fact that Ali.NOM.3 Maryam.ACC see understand
'He understood the fact that Ali has seen Maryam.'
b. * *ki-o* U [in haqiqat raa ke Ali -----dide ast] fahmid?
Whom he.Nom.3 the fact that Ali see understand
'Whom did he understand the fact that Ali has seen?'
c. ?? *ki-o* U fahmid ke Ali ----- dide ast ?
Whom he understand that Ali see
'Whom did he understand that he has seen ?'

- (23) a. Man [be in ide ke Ali Maryam raa be mehmaani miaavarad] fekr mikonam.
 I.NOM.1 the idea that Ali.NOM Maryam.ACC to party bring think
 'I think the idea that Ali bring Maryam to the party.'
- b. * *ki-o* fekr mikoni be in idea ke Ali ----- be mehmaani miaavarad?
 Whom think the idea that Ali to party bring
 'Whom do you think the idea that Ali bring to the party?'
- c. *ki-o* fekr mikoni ke Ali ----- be mehmaani biaavarad?
 Whom think that Ali to party bring
 'Whom do you think that Ali b
- d. *ki-o* fekr mikoni ke Ali ----- dide baashad?
 Whom think that Ali see
 'Whom do you think that Ali has seen?'

In examples (22a, 23a) silent NP was added to the sentence. By this addition, the complement clause will be considered as a part of a complex NP. In this sense, the separation of one part from the complex NP can make an ungrammatical sentence such as examples (22b, 23b). In both type of verbs, bridge verb and factive one, the separation of one part of the complex NP, made the sentence ungrammatical. These examples show that the complement clauses on the basis of examples (22b, 23b) are islands that the wh extraction made it ungrammatical.

Through the study of examples (22c, 23c & 23d) can conclude that the complement clause after the factive verbs is an island stronger than the complement clause after the bridge verbs. In these examples that the silent NP omitted, wh-extraction is less acceptable after factive verbs. The conclusion of this test is that the structure of complex sentences with the verbs such as factive, bridge and manner of speaking are different.

In this approach and on the basis of its method of analysis, syntactic island (in formal view) is versus pragmatic island(functional view). Pragmatic island refers to the type of knowledge within the complement clause. Thus the complement analysis on being an island depends on the type of information included. It is claimed that the complement clauses with background knowledge are islands such as the complement clause in factive verbs or presupposed adjuncts. On contrary, the complement clause includes assertion or foreground knowledge are not an island for the wh-extraction. This type of extraction is permitted and acceptable.

2. Backgrounded complement clauses as an island

In this section of analysis the information inside the complement clauses of three types of verbs is examined. The objective is to provide some evidence that the information in these types of complement clauses is different. Many scholars related the constraints on wh-extraction to information structure. These studies clarified that the gap remained after the wh- extraction, should be placed within a *focused*⁴ domain (VanValin & Lapolla 1997, VanValin 1998, Erteschik-Shir 1979, 1998, Takami 1989).

Thus the presence of the gap within the backgrounded complement clause can not be acceptable. In other words, the hypothesis is that the wh-extraction from the backgrounded complement clauses are not permitted. The complement clauses are presupposed after the verbs such as factive and manner of speaking. This claim will be confirmed by Negation Test.

2.1 Negation Test

This type of test is to determine whether a complement clause is presupposed or not. This test includes two types: a- the classic / old one b- the modern one

In *classic* way, the sentence is negated. After negation of the sentence presupposition is the same in positive and negative forms. For example:

- *Complex NP*

- (24) U [gozareshi raa ke dar mored e Maryam bud] nadid
 He.NOM.3 report.ACC that about Maryam was not.see
 'He did not see the report was about Maryam.'
- persupposition** → gozaresh dar mored e Maryam bud
 report about Maryam was
 'the report was about Maryam.'

- *Sentential Subject*

- (25) [inke u haqiqat raa midaanest] azaarrash nemidaad.
 That he.NOM.3 the fact know not bother
 'That he knows the fact, did not bother him.'
- Presupposition** → U haqiqat raa midaanest.
 He fact know
 'He knows the fact.'

- *Presupposed adjunct*

- (26) Aanhaa khaane raa tark nakardand [taa zamaani ke qazaa khordand]

⁴The complement with foreground knowledge

They. NOM house left not until that food eat
 'They had not left the house before they ate their food.'
Presupposition → *Aanhaa qazaa khordand*
 They food eat
 'They ate the food.'

- *Complement of Factive Verbs*

(27) Maryam nafahmid [ke Ali ketaabhaa raa did e ast]
 Maryam not understand that Ali books see
 'Maryam did not understand that Ali has seen the books.'
Presupposition → *Ali ketaabhaa raa did e ast*
 Ali books see
 'Ali has seen the books.'

The negative forms of the examples (24-27) show the presuppositions are the same and they do not change when the sentences are negated. Thus all complement clauses in the above sentences (24-27) are presupposed and island. The complement clause of the factive verb (in example 27) is presupposed too. This type of a clause is an island and wh-extraction is not acceptable within them (example 17b & 19b).

On the base of this hypothesis the complement of manner of speaking verbs are islands as well. The reason is that the wh-extraction makes the sentences unacceptable or ungrammatical (examples 16&18). The analysis of Persian sentences show this type of verbs have some exceptions. We discuss it in the following examples. The following discussion is considered in a separate classification.

(28) a. U faryaad zad [ke Maryam rafte ast].
 He.NOM shout that Maryam go
 'He shouted that Maryam has gone.'
Presupposition → Maryam rafte ast
 Maryam go
 'Maryam has gone.'

b. U faryaad nazad [ke Maryam rafte ast].
 He not shout that Maryam go
 'He did not shout that Maryam has gone.'
Presupposition → Maryam rafte ast
 Maryam go
 'Maryam has gone.'

(29) U baa khodash zemzemeh nakard ke Maryam rafte ast.
 He.NOM.3 himself not murmur that Maryam go
 'He did not himself whisper that Maryam has gone.'

The negation test in example (28) shows the presupposition is the same in both sentences (28a & 28b). Manner of speaking verbs behaves similarly in this aspect (focus is on the complement). However, the focus is on the verb in the main clause as in example (29) the presupposition is not represented (cleared). When the speaker focuses on the verb zemzemeh nakard (didn't murmur) in a special context, it can convey other information and it shows 'the action that the person did not do'. Thus if the emphasis of the speaker is on the manner of speaking rather than the propositional content (complement clause), can transfer other information.

In example (29) speaker says this sentence to tell the listener that "he is not unhappy because she went or conversely "because of much sadness he does not say anything". The conclusion of the analysis is that the complement clause of factive verbs are islands.

In the *new way* of negation test, a pair of sentences can be negated. One of them is the negation form of the testable sentence (the main sentence) and the second one is the negation form of the complement clause of the first sentence. In this test the speakers should judge the relationship between these two sentences. If the speakers claim one sentence entails the second sentence, the complement clause consists of background knowledge. If the speakers don not feel this relationship; it means, the complement clause is not backgrounded (it is foregrounded). The fact is that the second sentences in examples (30b & 31b) are presuppositions. The relationship between the first and the second sentence refers to the backgroundedness in the complement clause.

(30) a. U faryaad nazad [ke Maryam rafte ast].
 He.NOM.3 not shout that Maryam go
 'He did not shout that Maryam has gone.'

b. Maryam narafitte ast.
 Maryam go not
 'Maryam has not gone.'

(31) a. Man fekr nemikonam [ke Maryam rafte baashad].
 I.NOM.1 not think that Maryam go
 'I don't think that Maryam has gone.'

- b. Maryam narafte ast.
Maryam not go
'Maryam has not gone.'

In the example (30) sentence *a* entails sentence *b*. In this example, the complement of the sentence is presupposition. The native speaker's judgment proves this fact. In example (31) there is no this relationship; that is, sentence *a* does not entail sentence *b*. The bridge verb like *fekr krđan* (to think) does not have any presupposition, because speaker does not exactly know that "*U rafte ast yaa na*" (whether she went or not).

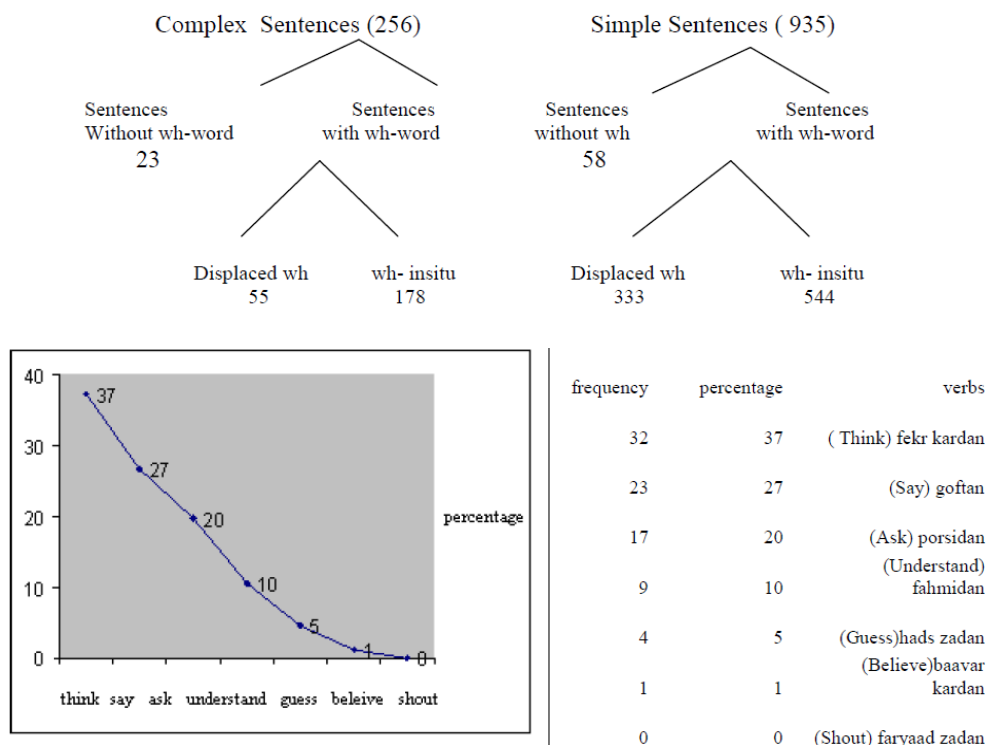
However, in the manner of speaking verb like *faryaad zadan* (to shout), this is "*U raft e ast*" (she has gone) is presupposed. Thus there is an entailment between (30a & b). Language studies prove this claim.⁵

These two tests showed the complements of factive verbs and manner of speaking verbs are islands and wh-extraction is not permitted. However, this case is not the same with the complement clause of bridge verbs. Thus wh-extraction is permitted from the complement clause of bridge verbs. Persian evidence shows wh-extraction from the complement clause of bridge verbs is more than the others. The accurate table and diagram will be represented at the end of this article as evidence. Some collected data from other languages confirm this claim⁶.

IV. CONCLUSION

To sum up this discussion, the classification of the verbs and their complements are necessary to extract the constituents in filler- gap constructions. The function of wh-constructions is related to information structure. The wh-extraction from the complement clauses of bridge verbs is acceptable. This type of complement is not an island (that is to consist of foregrounding knowledge). However, this extraction from the complement clauses of the verbs like factive and manner of speaking are not accepted (or less accepted). Their complement clauses are an island (included background knowledge).

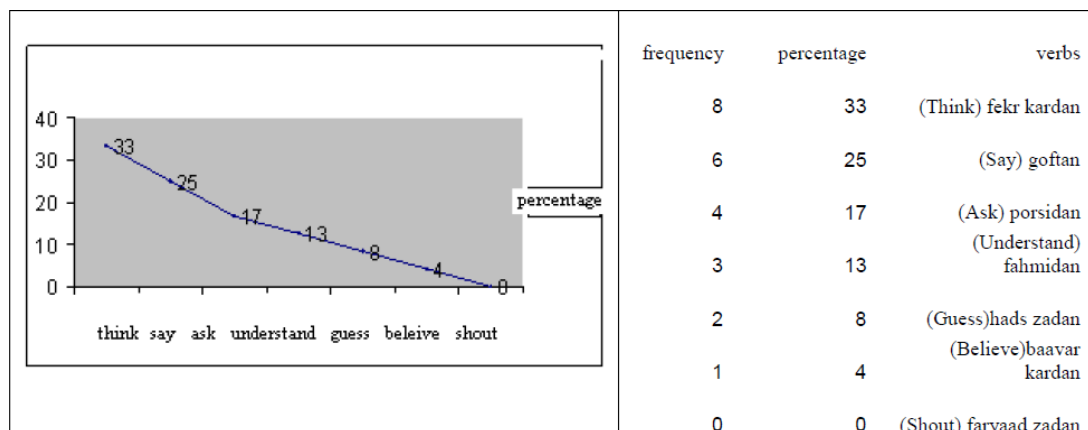
The frequency of Persian evidence confirm this claim that *wh-extraction is more from the complements of Bridge verbs*. From 1191 gathered in Persian, 256 are complex and 935 simple sentences. This statistical analysis shows the number of simple sentences is more than complex sentences. The frequency of wh-extraction from the complement of bridge verbs is more in comparison to other verbs in Persian.



⁵This assumption is not just considered in wh-words within the complement clauses. Language studies show, If *topic* in subject questions included new information, is not considered as presupposition. When a constituent is placed in focus domain, can not be omitted. Thus *Subject* can possess new (Lambrecht 1994: 274). For example: - *what happened? -The window was broken.* - * *was broken* (Ambridge and Goldberg 2008: 135) claims in the following example wh- word is a primary topic.- *Who is bald?* so primary topic and the constituents in the focus domain are not presupposition.

⁶ In Manchester Corpus 96 % of the constructions are included these verbs *fekr kardan* (to think) and *goftan* (to say) (Dabrowska 2004:197).In English and Poland languages 10 sentences out of 11 are made with *fekr kardan* (to think). The same evidence can be studied in (Poulsen 2006 in Ambridg and Goldberg2008).

The number and Frequency of the three types of verbs in Persian simple sentences with wh-in situ (bridge, factive and manner of speaking)



The number and Frequency of the three types of verbs in Persian complex sentences with displaced-wh (bridge, factive and manner of speaking)

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