A Semantic Analysis of Constructions Consisting of "ba" (WITH) in Persian Language[1]

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Abstract

This article investigates the comitative constructions in Persian. These constructions consist of three members named accompanion, accompanee and accompanying setting. Previously, studies considered 'bā' (WITH) as a preposition in traditional grammar. All traditional grammarians introduced 'bā' as a preposition except those who pointed to 'bā' (WITH) in accompanying situations. One of the aims of the present research is to answer this question: Is 'bā'(WITH) a preposition in all sentences or is it a conjunction or both? So, this study attempts to show its syntactic and functional features in Persian. Another goal is to compare coordinated and comitative constructions. The hypothesis is that 'bā'(WITH) can be considered as a conjunctor and a preposition as well. Thus comitative constructions are divided into two groups: 1) symmetrical constructions in which [with + DP2] is not an adjunct (an argument). The type of the verbs in this group are as follows: collectives, combining, relational predicates and similar comparison. 2) asymmetrical constructions in which [with + DP2] is an adjunct. The second type does not depend on the type of the verbs. It consists some members named non-collective verbs, instrumental, body organ, transportation. The instrumental type are of mediatory and facilitating. The findings of the present article can be used in the teaching of Persian grammar as well as syntactic analyses.

Key words: Comitative construction, Symmetrical comitative, asymmetrical comitative, conjunctive coordination, Persian Language

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1. Introduction

In Persian, comitative constructions are formed by using the preposition "bā" (with) and noun phrases that can be either animate or inanimate in similar conditions. Linguistic studies based on semantic-functional strategies, such as Stassen (2000) and Papero (2012) have indicated that these types of constructions share some similarities with coordinate constructions formed through the conjunction "and". After examining 270 languages, Stassen (2000) concludes that Indo-European languages employ two strategies in generating comitative constructions: the "AND" strategy and the "WITH" strategy. Following this analysis, linguistic typology can be divided into two types: the "AND" category (where both "and" and "with" are used as strategies for the accompanying setting) and the "WITH" category (where only the "WITH" strategy is used as a last resort). In other words, in the "WITH" category, there is no coordinate strategy using the conjunctor (and), and comitative strategy is solely expressed through the grammatical morpheme "bā". Haspelmath (2004) believes that in these languages, the comitative construction has undergone a shift from a comitative to a coordinated construction, leading to a corresponding change in the role of the grammatical morpheme "bā" from a morpheme which indicates or marks comitative case to a morpheme which indicates or marks coordination

According to Stassen (2000, p. 4), coordinate and comitative constructions are seen as having equal semantic value on the same scale. Coordination has been defined from both syntactic and semantic perspectives. From a syntactic viewpoint, the emphasis has been on the sameness of categories of noun phrases and their constituency (Chomsky 1957, 1965, p. 212). Semantically, coordination has been interpreted as making a larger unit from the parts, where units with similar semantic roles come together (Haspelmath, 2000, p. 1). Stassen (2000) also believes in his typological framework that nominal coordination occurs if:

a) Noun phrases refer to the occurrence of a single event.

b) The single event is occurred by the participants simultaneously (are conceived of as separate individuals) as in:

1- a. <u>John and Mary</u> are talking.

   b. <u>John</u> is talking <u>with Mary</u>. (Paperno, 2012, p. 1)

2- a. <u>John and Mary</u> will arrive tomorrow.

   b. <u>John</u> will arrive <u>with Mary</u> tomorrow.

Based on the definition provided above, both '*John'* and *'Mary'* share the same category (1a and 2a) and have similar semantic roles. In examples (1b) and (2b), although there is a very slight difference in meaning, both '*John'* and *'Mary'* are involved in the realization of the verb event. What they have in common is that the verb event is possible with the mutual interaction of both participants. Therefore, another surface structure can be considered for them:

3- a. <u>John with Mary</u> are talking.

   b. <u>John with Mary</u> will arrive tomorrow.

As the examples demonstrate, we are dealing with both types of constructions, coordinate and comitative. Based on Stassen's (2000) perspective, conjunction and comitative markers have the same functions in these constructions, and it appears that they both play a unitary role. Kayne (1994) also categorizes both conjunction and comitative markers in the same category based on Stassen's viewpoint, placing them in a head of a phrase called XP. However, in the current discussion, the focus is not on their syntactic analysis, and their syntactic and typological analysis must be presented in another paper.

Based on Stassen's (2000) hypothesis, we are seeking an answer to the question of whether, similar to English, the grammatical morphemes "با" ("bā") in Persian functions similarly to the conjunction "و" (va) or not. If the answer is affirmative, under what conditions and with which verbs is this possibility feasible? The writers assume that in Persian, there is a similarity between the two, but these conditions are limited to some specific verbs. Therefore, in Persian, it is possible to assume two roles for the grammatical morpheme "با" ("bā"); based on these two hypotheses, two types of comitative constructions can be determined. Regarding the different perspectives on the grammatical morpheme "با" ("bā") in comitative constructions, the writers aim to illustrate the status of comitative constructions and their types in Persian. The

significance of such research lies in determining the dual behavior of "با" ("bā") in this language. The outcome of this research can have an impact not only on linguistic modules, but also on teaching Persian at all levels of education. It can demonstrate that "با" ("bā") is not merely a preposition and can have the other role as well. The main objective is to answer whether "با" ("bā") is solely a preposition or not, performs both roles, or has a different function. This research can determine the different roles and the semantic/functional network of this particle in such constructions. Additionally, investigating the instrumental nature of these constructions and identifying their types are among the other objectives of this paper.

Upon examining the evidences and reviewing the previous literature, it becomes evident that such a linguistic research has not been conducted in Persian language yet. In traditional grammar and linguistic studies, this type of morpheme has solely been discussed as a preposition. However, the attention of non-Iranian linguists to this type of construction is noteworthy. For instance, in the Turku Seediq dialect (a Formosan language) spoken primarily in western Taiwan, '*deha'* (with) functions solely as a preposition. *Yetoq* (with) in Q'anjob'l (a Mayan language) in Guatemala, Capeverdean Creole (a Portuguese-based creole language), and Paiwan (in the investigation of Austronesian languages), '*Ka'* (with) serves both as a preposition and a conjunction. The scope and expansion of the topic to other languages led the writers to examine such constructions and determine their types through evaluating multiple linguistic tests. This research is based on the assumption that in Persian, "with" also has both functions and its comitative constructions also include other subcategories.

The present article consists of four parts. The first part deals with the critique and examination of Stassen's examples in English (Stassen, 2000). The second one focuses on the studies and backgrounds of Iranian grammarians and linguists regarding comitative and coordinate constructions. The third part is dedicated to data analysis, which is further divided into two subparts. The data analysis subsection involves various tests that evaluate the comitative constructions on a scale. By assessing these constructions in this section, it is

possible to classify the types of comitative constructions. Additionally, the differences and similarities between these two types of constructions, comitative and coordinate, are determined. Therefore, by defining the characteristics of comitative constructions, their types will be introduced along with their subcategories in Persian. The fourth part provides a summary and the overall conclusion.

2. Comparing Stassen's (2000) examples in English and Persian

As mentioned earlier, Stassen proposes two solutions for languages like English and all Indo-European languages, assuming that the grammatical morpheme "با" ("bā") and "و" ("va") function in the same way. Consider the following translation of his examples into Persian:

4- a- *John va Mary dārand sohbat mikonand[1]*

John and Mary are talking.

b- *John darad bā Mary sohbat mikonad.* (Paperno, 2012, p.1)

John is talking to Mary.

c- *John bā Mary darad sohbat mikonad.*

John talks to Mary*.*

5- a- *John va Mary fardā xāhand resid (mi-rasand).*

John and Mary will arrive tomorrow*.*

b- *John fardā bā Mary mi-resad.*

John will arrive with Mary tomorrow.

c- *John bā Mary fardā mi-resad.*

John arrives with Mary tomorrow*.*

The verbs used in the above examples (4-5), such as "speaking" and "arriving", are being discussed to determine their alignment with the provided definition in the introduction: "nominal phrases referring to a single event A single event should be jointly participated by two individuals simultaneously (with separate referents) by two participants". These constructions, coordinate and comitative constructions behave the same.

In sentence (4a) there is a possibility for John to speak with someone

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[1][John & Mary are speaking together] is the main aim of the discussion in this context.

other than Mary, and the same applies to Mary. In sentence (5a), in the case of coordination, a single event occurs, but simultaneity is not necessary. It is possible for John to arrive at the destination at 12 o'clock and Mary to arrive at 5 o'clock. Therefore, these examples do not align with Stassen's definition.

In sentences (4b) and (5b), the occurrence of the event is observed simultaneously. Therefore, the comitative constructions with verbs like "speaking" and "arriving" in the coordinate and comitative constructions (4b and 5b) function differently in terms of meaning and syntactic structure. Additionally, in this analysis, the structure [bā + noun phrases $_2$] and its variations have not been taken into account. In these two examples, this structure is optional, and if omitted, the sentence remains grammatical. Another difference observed between English and Persian is the agreement in these sentences.

The grammatical agreement (singular or plural) is also different in these constructions. Therefore, based on the discussion above, we cannot observe comitative construction in these examples in Persian. The authors' hypothesis is that the semantic nature and type of the verb play a significant role in this analysis. In response to the question of whether "با" ("bā") linking or connecting role (linker) in such constructions, the answer can be positive, but in specific conditions and with specific verbs that will be introduced. These verbs are those in which the presence of two noun phrases is necessary, and the constituent [bā + noun phrase] is not optional. Unlike the English examples where they were optional constituents (adjuncts) in both examples (4b) and (5b), and they have not been regarded as the verb arguments. These verbs include collective verbs, compound verbs, relational predicates, and sameness comparison. In this type of comitative construction, the grammatical morpheme "با" ("bā") can have a linking or connecting role. To prove this claim, after reviewing the literature review, various comitative constructions will be introduced and analyzed using tests.

3. Background and Literature review

3.1. The grammarians

Natel Khanlari (2001, 246-252), Anvari and Ahmadi-Givi (2001, pp. 312-313) have referred to this type of sentences as "linking sentences." According to them, independent sentences in a speech or text can be connected to each other. This connection is divided into two categories: semantic linking and verbal/ literal linking. In semantic linking, two or more independent sentences are placed one after another without any intervening word or phrase connecting them directly (Anvari and Ahmadi-Givi, 2001, pp. 248). In verbal/ literal linking, two or more independent sentences with a common subject and tense are connected through an intervening word or phrase. They refer to this word as a conjunction. Sentences that are joined together by a conjunction have one of the following relationships: agreement, equality, alternation, opposition, sequence, confirmation and negation, participation in negation, expressing cause and result.

Traditional grammarians have solely provided a descriptive view of the phenomenon of coordination. In these descriptions, internal structure, syntax, and grammatical elements have been the focus of attention. Therefore, with an understanding of valuable previous achievements and a theoretical approach, such constructions are studied to achieve a comprehensive explanatory framework that addresses theoretical, semantic and practical challenges.

3.2. Linguists

Kalbasi (1997, pp. 137-140) has focused on the analysis of some Mazandarani and Gilaki dialects. Like traditional grammarians, she has primarily provided a descriptive account of these constructions. Therefore, her study aligns with and resembles the approaches of traditional grammarians.

Gholamali-zadeh (2007, pp. 139-144), Mahoutian (1999, pp. 78-86), and Lazar (1393, pp. 247-250) define coordination as follows: two independent clauses with the same element or similar syntactic roles are connected by coordinating conjunctions; these conjunctions can also appear between two words within a single clause (Lazar, 1393, p. 247).

Fayazi (2013, p. 117) addresses coordination in Persian from a cognitive perspective. In her study, she focuses on cognitive factors and their influence on coordination. Coordination is interpreted as follows: coordinating structures share a common element and have a similar structure. In response to two main questions: Are coordinating structures contingent upon specific semantic criteria? Is there a conceptual or thematic relationship between coordinating structures? She concludes that there is a semantic relationship between the two coordinating structures. On the other hand, cognitive factors such as size, animacy, temporal sequence, prominence, contrast, parallelism, and metaphorical relations play a role in coordination. In simpler terms, cognitive factors have an impact on coordination.

Shabani et al. (2010, pp. 131-156) discuss coordination in Persian. They introduce conjunctions and their types from a syntactic perspective and explore multi-core approaches and coordinating conjunctions. They then mention the insufficiency of the predicate-complement-adjunct assumption. According to their perspective, coordination is possible at any level, even lower than the word level. Finally, relying on the pure merging process, they find this approach effective in explaining Persian data. According to this approach, coordination is feasible at any level.

Lazard (2014, p. 89) introduces and describes prepositions, categorizing "با" ("bā") as expressing companionship and instrumentality. In his analysis, he refers to the complement of the preposition as the "prepositional complement" because it establishes a relationship between the direct object and the verb through the intermediary of the preposition (Lazard, 2014, p. 227). In his examination, he discusses the combination of adverbials of manner, instrument, and agent with the prepositions "با" ("bā") and "به"(be[to]). He considers the nouns that are used with the preposition "با" ("bā") as essential nouns. Additionally, he believes that this preposition can also be observed with adverbs.

The means and instruments of performing an action are often expressed with compound prepositions (with or without additional prepositions):

6- *čandeen taxte sang ke bā sarooj va gol mohkam šode boodand*. (Lazard, 2014, p. 234)

  Several stone slabs that were secured with clay and mud.

  Another role attributed to the preposition "bā" (with) is to indicate companionship, affiliation, or partnership.

7- *Bā zan o bačče be Uropaa rafte ast.*

  He has gone to Europe with his wife and child.

8- *Bā xodeš goft.*

  He said to himself.

  According to his perspective, the complement that "bā" (with) attaches to is often related not to the verb, but to a noun.

9- *Mard-e mossen-i bā lebas-e farsude vāred šod.*

  An old man entered with worn-out clothes.

  At times, "bā" (with) in this complement is almost equivalent to the coordinating conjunction "va" (and) in terms of its function.

10- *Hassan bā barādaraš āmadand. [Hassan and his brother]* (Lazard, 2014, p.236).

  Hassan came with his brother.

  In this research, the connotation of companionship is also demonstrated with compound prepositions like "hamrah-e" and "behamrahi-e".

  In Example (10), Lazard uses the preposition "bā" (with) to indicate its function as a conjunction "va" (and), despite having a singular subject. From a syntactic perspective, such concordance (singular subject with plural intransitive verb) in the verb is not grammatically acceptable. The verb "āmadand" (to come) as an intransitive verb does not require the constituent "[با+گروه اسمی]" (with + noun phrase). Lazard's viewpoint differs from the approach presented in the current research. However, it is highly commendable that he acknowledges the equivalence between "bā" (with) and the conjunctor "va"(and).

  In support of the agreement of plural verb with a singular subject, we can refer to another characteristic of the Persian language. One of the features of this language is the concordance between the singular and plural form of the

subject. If the subject is countable and its quantity is plural, it agrees with a plural verb. The concordance and its marker appear on the verb in the singular or plural form. Therefore, if the subject is animate and plural, the verb should also be plural (Natel Khanlari, 2013, p. 52). In the Persian language, there is subject-verb agreement. In this language, a respectful style is also notable, where the verb is plural in all situations, even when the subject is singular.

11- *Išān bā xaharaš āmadand.*

He/She came with her sister.

12- *Jenabe āli farmoodid.*

You (honorable) said.

As a sign of respect and politeness, after a noun that refers to a single person, plural verbs are often used (Lazard, 2014, p. 213).

13- *āqa manzel nistand.*

Sir are not at home[1].

Sometimes in this language, a singular verb is used when the subject is a plural noun.

14- *Polis āmad.*

The police arrived.

Undoubtedly, each of the previous studies has had valuable achievements. Based on their findings, the concept of coordination has been limited to the conjunction "va" (and). Semantic and pragmatic investigations indicate that from the perspective of semantic and pragmatic approaches, it is possible to consider another type of با ("bā") that has not been addressed in previous studies; با ("bā") as a connector/linker. Therefore, با ("bā") as a preposition and a connector/linker deserves attention. The present research focuses solely on the examination of با ("bā") in the construction of "Coordination" ("ham-payegi") in the Persian language, based on semantic-pragmatic considerations. Such a theoretical analysis was not found in the previous literature.

After discussing the general features of agreement in the Persian language, we will analyze the data of comitative constructions in the following

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[1] It is the literal translation into English

section to achieve a comprehensive classification of comitative types in this language.

4. Data analysis

In this section, by evaluating the comitative and instrumental constructions, the characteristics of these types of structures are determined. The main goal of data analysis is to demonstrate that comitative constructions can be classified into two types: symmetrical type, where the constituents [noun phrase 1] and [bā (with) + noun phrase 2] are the main arguments of the verb, therefore [ب+noun phrase 2] is not an optional or additional element. In this group, (bā =with) plays the role of a linker. The second group is the asymmetrical type, where the constituent [ب+noun phrase 2] is an optional and additional element (adjunct). In this group, (bā =with) functions as a preposition. In this type, there is no necessity for agreement in animacy or inanimacy. The Instrumental asymmetrical construction and its subclasses are also in this category, which are discussed in section 4-2.

4.1. Symmetrical comitative constructions

In this type of constructions, two noun phrases are arguments of the verb in the sentence and they are equivalent in terms of animacy/non-animacy. The verbs that form these structures include collective verbs (verbs that require two constituents, such as comparing, attacking, competing, etc.), relational predicates (relational verbs that represent the relationship between two constituents or linguistic elements, such as being friends, being contradictory, being similar, etc.), combining verbs (verbs that combine and mix two elements), and similarity comparison (where the similarity or equal size of two elements is indicated by a specific relational verb, such as being of the same age, being of the same height, etc.). These two noun phrases both participate in the realization of the verb event. Through the following tests, it can be concluded that in most cases, the comitative construction has the same function to the coordinate constructions, which is the evidence of the similarity of the coordinating conjunction "and" and the functional word "bā" (with) in

these structures. In the analysis of symmetrical comitatives in Persian, considering semantic and pragmatic considerations, the hypothesis is that in this type of commutative sentences, there is a similarity between conjunctive coordination and comitative constructions, meaning that با ("bā") functions as a linker.

4.1.1. Substitution Test

In this test, if two noun phrases have the same value, substituting them will not result in any change in the meaning of the sentence. For example:

15- a) *Ali bā Minā ham qad ast. = Ali va Minā ham qad hastand.*

Ali and Mina are the same height.

b) *Minā bā Ali ham qad ast. = Minā va Ali ham qad hastand.*

Mina and Ali are the same height.

16- a) *Ali namak rā bā āb maxloot kard. = Ali namak va āb rā maxloot kard.*

Ali mixed salt with water.

b) *Ali āb rā bā namak moxālat kard. = Ali āb va namak rā maxloot kard.*

Ali mixed water with salt.

17- a) *Ali bā Hassan dust ast. = Ali va Hassan dust hastand.*

Ali is friends with Hassan.

b) *Hassan bā Ali dust ast. = Hassan va Ali dust hastand.*

Hassan is friends with Ali.

It is worth mentioning that at this stage of analysis, the information structure and grammatical position are not considered as relevant elements because there are certainly fundamental differences in their information structure and the way information is placed in the sentence. In sentence (15a and b), which shows the similarity and analogy between "Ali" and "Maryam", the comitative construction is semantically like the coordinate constructions. In case of substituting the two noun phrases, the meaning remains unchanged in both. In example (16a and b), which includes a combining verb, once again, substituting the constituents maintains the same semantic meaning. In this sentence, "salt" as the direct object and "water" as the indirect object are both influenced by the action and function of "Ali" in the subject position. Their discourse context and information structure have been ignored. In example

(17a and b), "being friends" as a relational predicator establishes a reciprocal relationship between "Ali" and "Hassan", which is expressed similarly in its coordinate equivalents.

Therefore, in each of the examples, substituting the two noun phrases in the comitative constructions, similar to coordinating conjunctions, does not bring about a change in the accomplishment of the event; in all of them, both constituents participate in the realization of the verb event and the mode of analogy have remained the same.

4.1.2. Omission of the constituent [bā (with) + noun phrase₂]

18- a) *Maryam bā Minā xāhar ast.* ⟶ **Maryam -----xāhar ast .*

Maryam is Mina's sister.

19- a) *Maryam va Minā xāhar hastand.* ⟶ **Maryam------ xāhar hastand .*

Maryam and Mina are sisters.

20- a) *Maryam rā bā Minā moqāyese kard.* ⟶ ** Maryam rā ---- moqāyese kard. (Regardless of the speech context)*

He compared Maryam with Mina.

Sentences (18-20) indicate that the constituent [bā (with) + noun phrase₂] requires semantic and syntactic completion to be acceptable. The constituent [bā (with) + noun phrase₂] is not an adjunct and is similar to "and" phrase.

4.1.3. Unity of Semantic Role between [DP1] and [DP 2 + bā (with)]

21- *Ali bā Hassan u rā koštand. = Ali va Hassan u rā koštand*

Ali and Hassan killed him.

22- *Ali bā Hassan šahid šod. = Ali va Hassan šahid šodand.*

Ali and Hassan were killed.

23- *Talā bā noqre be rāhati tarakib šodand. = Talā va noqre be rāhati tarakib šodand*

Gold and silver easily combined.

As shown in examples (23-21), in sentence (21), both Ali and Hassan are agents in carrying out the event of the verb. Both Ali and Hassan are involved in causing the death of someone, both Ali and Hassan together or Ali along with Hassan. In example (22), both Ali and Hassan are affected by the action, and the same applies to example (23) where the non-animate noun

phrases "gold" and "silver" are affected by the event and combination action. Therefore, these examples illustrate the similarity between the constructions of comitative and coordinate. In each of them, both instances refer to a single event. This indicates the similarity between symmetrical comitative and coordinative conjunction.

4.1.4. VP ellipsis

In symmetrical comitative constructions, it is assumed that both [noun phrase₁] and [noun phrase₂ + bā (with)] are arguments of the verb. Therefore, they are not considered as an adjunct. With the acceptance of this assumption (non-adjunct), retaining them at the end of the sentence after permissible deletion is not allowed and would result in ungrammaticality.

24- a) *Ali takālif-e xod rā **ruz-e do šanbe** nevešt va Maryam (ham**) ruz-e panj šanbe**. (adjunct)*

Ali wrote his assignments on Tuesday and Maryam (also) on Friday.

b) * *Ali **ketāb rā** ruz-e do šanbe āvard va Maryam (ham) **majaleh rā**. (argument)*

Ali brought the book on Tuesday and Maryam (also) the magazine.

25- a) */?? Ali **kif rā bā kelidaš** bardāšt va Hassan **bā eynakaš**.*

Ali compared Bita and Maryam together and Hassan with Mina.

b)* /?? Ali **Bitā rā bā Maryam** moqāyese kard va Hassan **bā Minā**.*

Ali compared Bita with Maryam and Hassan with Mina.

Retaining both the coordinating and symmetric comitative construction leads to ungrammaticality and is considered unacceptable (24b and 25a&b). However, retaining the adjunct does not pose a problem (24a). This test indicates that in this type of construction, [noun phrase₂ + bā (with)] is not an adjunct. According to native Persian speakers, the acceptable form of sentence (25b) would be "Ali Bita rā bā Maryam moghāyese kard va Hassan U rā bā Mina."

4.1.5. The optionality of the constituent [Noun Phrase2 + bā (with)]

The assumption is that in symmetrical comitative constructions, the structure [Noun Phrase₂ + bā (with)] is not optional. Examples of this are as follows:

26- a) *Ali bā Hasan barādar ast.*   b) * *Ali barādar ast.*

     Ali is Hassan's brother.   Ali is a brother

27- a) *Ali bā Hossein qazā poxt*   b) *Ali qazā poxt.*

     Ali cooked food with Hossein.   Ali cooked food

28- a) *Ali Minā rā bā barādraš moqayese kard.*   b) */٢٢ *Ali Minā rā moqāyese kard.*

     Ali compared Mina with his brother.   Ali compared Mina

The omission of [noun phrase$_2$ $_+$ bā (with)] in the examples (26b and 28b) indicates that in some syntactic contexts, it is necessary, as shown in (26a and 28a), while in example (27a and 27b), it is optional. Therefore, depending on the type of the verb and the necessity of it in accomplishment of the verb event, it is evident that it is not an adjunct. As an argument, it has a specific role. In cases where it is optional (adjunct), it does not play a crucial role in the realization of the verb event.

4.1.6. Pronominal Substitution

29- a) *Ali bā Hossein barādar ast.*   b) *ānha barādar hastand.* c) * *U barādar ast.*

     Ali is Hossein's brother.   They are brothers.   He is a brother.

30- a) *Talā va noqre be rāhati tarkib šodand.*   b) *ānha be rāhati tarkib šodand.*

     Gold and silver were easily combined.   They were easily combined.

Examples (29-30) demonstrate that symmetrical comitative constructions show the plurality concept. This relationship is bi-directional, such as being brothers, being friends, and the combination of two objects, are bi-directional events can convey the concept of plurality. Therefore, the substitution of the plural pronoun in place of both arguments, compared to the singular pronoun, is acceptable.

4.1.7. Binding

31- a) *Mādar, pedaraš xodašān rā dar āyene didand.*

     The mother and her father saw themselves in the mirror.

b) *Tim-e A bā tim-e B dar zamin-hāye xodašān be reqābat pardāxtand.*

     Team A competed against Team B on their own fields.

c) *Ali bā Maryam hardoo ham-qad hamdigar hastand.*

Ali and Maryam are both of the same height.

Regarding Government & Binding Theory, reflexive and reciprocal pronouns should be bound by an antecedent in their smallest governing domain. Evaluating these sentences, especially (31c) by Persian native speakers, poses ambiguity for the authors. The judgments on grammaticality and ungrammatically of Persian native speakers was different. The reason lies in the variation between formal and colloquial Persian. Some, based on their linguistic intuitions and considering the discourse context, deem sentence (31c) as grammatical and acceptable. However, others, adhering to prescriptive grammar rules and formal usage, consider the use of the grammatical morpheme "bā" (with) with the arguments "Ali and Maryam" as odd and unacceptable. Nevertheless, considering the predominance of judgments of sentence (31c), the authors regard it as grammatical.

Based on the examples, the plural pronoun "khodeshān" (themselves) has referred to the noun phrases "mother, her father", "team A with team B", and "Ali with Maryam". By referring the pronoun to the plural concept of the noun phrases and their agreement with the verb, it resembles the coordinate constructions.

4.1.8. Determining Constituency

In syntactic analysis, constituents can only be linked to each other by a conjunctor.

32- *(**Ali** bā **Maryam**) va (**Hassan** bā **Hossein**) be mehmāni raftand.*

Ali went to a party with Maryam, and Hassan went with Hossein.

The constituents (**Ali** bā **Maryam**), (**Hassan** bā **Hossein**) conjoined through AND. It shows they are in the same value.

4.1.9. Wh-questions and Focus

Focus is one of the tests that can demonstrate the function of a constituent [Noun Phrase$_2$ + bā (with)] as an argument, which can be done in two ways: Wh-questioning and Clefting.

33- a) *Mina bā Maryam xāhar ast/hastand.*

Mina is Maryam's sister.

b) *Minā hast ke bā Maryam xāhar ast.*

      It was Mina who is/was Maryam's sister.

c) * *Bā Maryam hast ke Minā xāhar ast.*

      It was with Maryam that Mina is/was a sister.

34- a) *Omar bā jam'ie be xāneh-aš hamle bordand. (Shariati, 2000, p.9)*

      Omar attacked his house with a group.

b) *Omar bud ke bā jami'e be xāneh-aš hamle bordand.*

      It was Omar who attacked his house with a group.

c) * *Bā jam'ie bud ke Omar be xāneh-aš hamle bordand.*

      It was with a group that Omar attacked his house.

d) * *Bā ki Omar be xāneh-aš hamle bordand?*

      With whom did Omar attack his house?

      Considering the examples (33 and 34), it can be concluded that the two constituents [Noun Phrase$_1$] and [Noun Phrase$_2$ + bā (with)] are not similar in terms of their information structure. The constituent [Noun Phrase$_2$ + bā (with)] cannot be focused in symmetrical (non-adjunct) constructions. Focus implies containing new information. Therefore, considering the examples (33c and 34c,d), the constituent [Noun Phrase$_2$ + bā (with)] contains presupposed and background information.

      The analysis of comitative constructions shows many similarities with coordinate constructions. After demonstrating the significant similarities between these two constructions, one of the distinguishing factors is the use of the adverb "jodāgāne" (separately), which is contrasted with the adverb "bā ham/bā hamdīgar" (together/with each other).

35- a) *Ali va Maryam bā ham raftand.*

      Ali and Maryam went together.

b) *Ali bā Maryam bā ham qazayešān ra tamām kardand.*

      Ali and Maryam together finished their meal.

36- a) *Ali va Maryam jodā az ham raftand. (Har yek be tanha'i / jodaganeh)*

      Ali and Maryam went separately from each other. (Each one alone / separately)

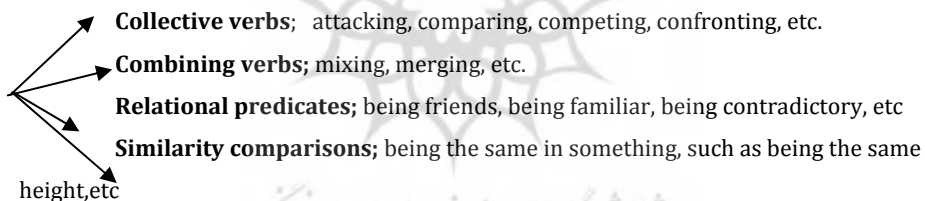b) * *Ali bā Maryam jodā az ham / jodā raftand.*

Ali went separately from Maryam.

As demonstrated by examples (35 and 36), in both comitative and coordinate constructions, the concept of simultaneous occurrence of events is observed in both constituents. However, the concept of separate occurrence is only possible in coordinate constructions.

The final outcome of this section on symmetrical comitative constructions in Persian can be summarized as follows: in this type of comitative constructions, which consist of collective verbs, relational predicates, combining verbs, and similarity comparisons, both constituents [Noun Phrase$_1$] and [Noun Phrase$_2$ + bā (with)] are arguments. So, the constituent [Noun Phrase$_2$ + bā (with)] is not optional and should not be considered as an adjunct. It functions as a linker. Contrary to English, this type of comitative construction can be represented in Figure 1:

Figure 1

Symmetrical comitative construction (non-adjunct)

Collective verbs;   attacking, comparing, competing, confronting, etc.

Combining verbs; mixing, merging, etc.

Relational predicates; being friends, being familiar, being contradictory, etc

Similarity comparisons; being the same in something, such as being the same height,etc

4.2. Asymmetrical comitative Constructions

In this type of constructions, both constituents [Noun Phrase$_1$] and [Noun Phrase$_2$ + bā (with)] are present, with the difference that the second phrase, the [Noun Phrase$_2$ + bā (with)]   is an adjunct. Therefore, "with" is located in the head of the prepositional phrase, and the prepositional phrase group is optional and does not play a role in the accomplishment of the verb event. Asymmetrical comitative constructions have various types, such as:

37- *Man gooŝt rā bā čāqoo boridam. (Alat/abzar)*

I cut the meat with a knife. (Tool/instrument)

38- *Ali bā māŝin miāyad. (Vasileye hamlo naghl)*

Ali comes with a car. (Means of transportation)

39- *U bā pā-ye piāde āmad. (Aza-ye badan)*

      He came on foot. (Body part)

40- *Ali bā Hassan qazā poxt. (Fe'al-e gheyr jame'i)*

      Ali cooked food with Hasan. (Non-collective verb)

As illustrated in the examples, in this type of comitative construction, similarity of both constituents on animacy is not necessary. The optional phrase [Noun Phrase$_2$ + bā (with)] can have various interpretations depending on the specific meanings associated with it.

4.2.1. Instrumental Construction

In this type of constructions, the constituent [Noun Phrase$_2$ + bā (with)]] functions as an instrument or tool. Consider the following examples:

41-a) *Ali dar rā bā kelid-e zang zade bāz kard.*

      Ali opened the door with the rusty key.

  b)- *Kelid-e zang zade dar rā bāz kard.*

      The rusty key opened the door.

42-a) *Pedar bozorg sup rā bā qāshoq-e čoobi xord.*

      Grandfather ate the soup with a wooden spoon.

  b) * *Qāshoq-e čoobi sup ra xord.*

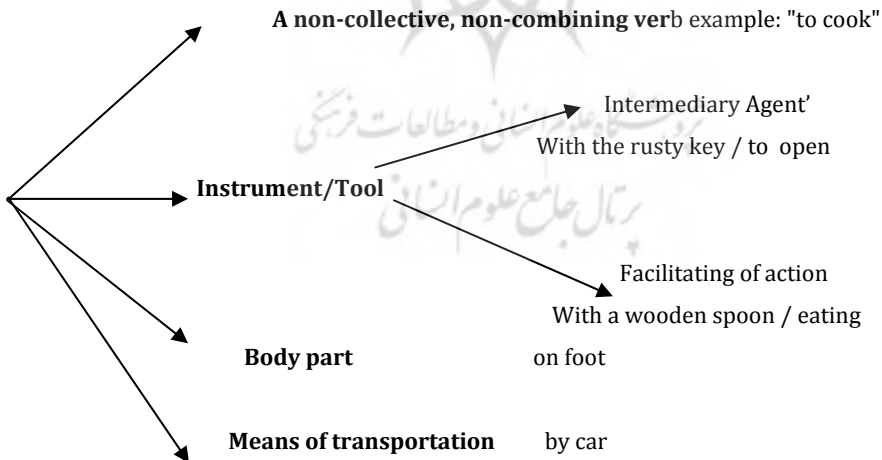   ** The wooden spoon ate the soup*

In both of the above examples (41a and 42a), the preposition "bā" (with) is used along with a tool. There is no difference between them in these examples. However, in examples (41b and 42b), they function differently as subjects. The presence of different complements in these two sentences leads to their distinct functions. Therefore, the different complements in the prepositional phrase (PP) are the cause of this distinction. In sentence (41), "Kelid-e zang zade" (the rusty key) is a phrase in which the tool ("Kelid", key) serves as an intermediary for the action of "baz šodan" (opening) and "dar" (door) ultimately resulting in the opening. Therefore, *Ali* performs an action on the rusty key, then the key, as an intermediary, makes the door open. Marantz (1984, p. 246) named this type of instrumental constituents as "Intermediary Agent".

However, in the examples (42a and b), *the wooden spoon* is also a tool that plays a role in the action of eating. This wooden spoon is different from the previous example of the key for opening the door. The wooden spoon cannot serve as an intermediary like the key, and the non-grammaticality of sentence (45b) is the evidence of that. Marantz (1984) refers to this type of tool as a "facilitating of action", while Pascal (1999) calls it as "means." In this sentence, the grandfather performs the action of eating using the spoon, but it is not the spoon that is eating the soup. The selection and operation of these instrumental phrases depend on the type of the verb and its arguments. In other words, the arguments behave on the base of the semantic nature of the verb which is permissible.

To sum up, the asymmetrical comitative construction exhibit different semantic networks. In this group, the constituent [noun phrase$_2$ + bā (with)] serves as an adjunct, and "bā" (with) functions as a preposition. The diagram below illustrates the types of asymmetrical comitative constructions:

Figure 2

types of asymmetrical comitative constructions

A non-collective, non-combining verb example: "to cook"

Intermediary Agent'
With the rusty key / to open

Instrument/Tool

Facilitating of action
With a wooden spoon / eating

Body part   on foot

Means of transportation   by car

5. Conclusion

The analysis of comitative constructions in Persian language has shown that in this type of constructions, two constituents, accompanion and, accompanee are connected to each other through accompanying linker "b" (with). They are divided into two groups: 1) symmetrical constructions in which [with + DP2] is not an adjunct (an argument). The type of the verbs in this group are as follows: this type has been used with specific types of verbs, including collective verbs, relational predicates, combining verbs, and similar comparison. In this type, the constituent [Noun Phrase$_2$ + bā (with)] is not optional and cannot be considered as an adjunct. Therefore, in syntactic analyses, the grammatical morpheme "bā" (with) is not regarded as a head of prepositional phrase. Thus it behaves like a linker; 2) asymmetrical constructions in which [with 'bā'+ DP2] is located at the head of a prepositional phrase and is considered an adjunct and an optional constituent. The asymmetrical comitative constructions include non-collective verbs, body parts, means of transportation, and tools/instruments. The instrumental type itself consists of mediatory agent and facilitating action.

To sum up, the overall discussion reveals that the Persian language employs the grammatical morpheme "bā" (with) in two syntactic and semantic positions. One is as a linker (non-adjunct), and the other is as the head of a prepositional phrase (adjunct). Such an analysis is feasible considering syntactic-semantic considerations.

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