
A study on the verbal treatment of finite and non-finite clauses in Persian active-passive sentences confronting with PRO according to cognitive linguistics [In English]

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ABSTRACT

PRO is considered as a substructure in linguistic studies that was first expressed by linguists in 1970s. Cognitive linguists also have conducted plenty of studies in this field. The current study aims at finding the Persian verbal treatment in active and passive voices of finite and non-finite clauses confronting PRO according to cognitive linguistics. To do so, at the beginning, each classification of Persian verbs is introduced and studied. The main hypothesis of this research is that all Persian verbs treat equally while facing PRO. Then, the verbs are compared and contrasted and the table of treatment is presented. At the end, all Persian verbs are compared and in the concluding table, the treatment of Persian verbs facing PRO is drawn. The results of this study indicate that Persian verbs have shown different treatment confronting PRO and they don't act similarly. The most significant conclusions of this paper indicate that Persian verbs in finite active voices react positively to PRO which means that the existence of PRO is possible in this clause while in non-finite active voices, no PRO was found that means in under this condition, Persian verbs react negatively to PRO. And finally, Persian verbs have non-stable treatment in passive voices and treated differently. In finite passive voices of Persian verbs except one classification of verbs that treated negatively to PRO, the other groups took both positive and negative position which means in some cases, they permitted the existence of PRO and in some other cases, PRO wasn't observed in the clause. And finally, in non-finite passive voices of Persian verbs, except one group of verbs, the other classification of verbs took negative position against PRO which means PRO wasn't found in these types of clauses but one group of verbs, took neutral position against PRO.

Keywords: PRO, Active Voice, Passive Voice, Finite Clause, Non-finite Clause, Cognitive linguistics.

1.Introduction

1.1. Cognitive linguistics

Cognitive linguistics combines language study and psychology and explains how language is interacted by human cognition and thoughts through language. In this field, linguistics studies human speech consisted of elements, units, nature, structure and shifts. Cognitive linguists study language as a subject matter like other linguists in the field of linguistics and their main purpose is to describe language system and language function. The main reason to study language for cognitive linguists is according to Craft (2004) hypothesis. According to Craft, language reflects thought patterns. Cognitive linguists believe in human mind sections and the close relation among language, comprehension and thought (Hilferti, 2001). Thus, the theory of separated sections of the mind is turned down by cognitive linguists. The main difference between cognitive linguists and other linguists is the theory that language reflects the basic features of the human mind. Another remarkable characteristic of cognitive linguistic is the description of language by symbolic units that are the result of close relation between form and meaning.

1.2. Chomsky Universal Grammar

Chomsky's UG is a crucial motivative force in language studies. The primary model of UG was published in 1957 that led to the creation of generative grammar in syntax. In 1970s, Chomsky's theory was developed to government and binding theory. The government and binding theory is considered as the base of Chomsky's UG. According to UG, all human beings are born with linguistic knowledge and this knowledge consists of parameters and principles that are common among all languages. Principles are those that describe similarities among languages but parameters explain the differences of languages. The primary beliefs in language studies described language as a constitution of rules and structures that are not related to each other. Human linguistic knowledge is not only a combination of limited structures and rules but also a set of principles that are actually the origin of structures and rules.

The absence or the abstract presence of PRO is also studied in Chomsky's UG. The main purpose of this study is to figure out the verbal treatment of *Persian* verbs while confronting PRO. The results of the study is going to tell the readers whether PRO exist or not in *Persian language*.

1.3. Pro drop parameter

PRO Drop parameter refers to a rule in which the pronoun that is used as the agent or patient of the sentence, could be abstract. The main characteristic of PRO drop languages is lack of subject pronoun and free movement of the verbs. Hølemburg (2005) believes that in PRO drop languages, agreement is absolute and thus, PRO is governed by the verb and its tense.

1.3.1. Persian as a pro drop language

In Persian language, the agent of finite clause could be replaced by PRO. In Persian, if the agent is not highlighted, it is allowed for the pronoun, not to be appeared in the subject position, thus, the subject pronoun is not formed nor pronounced. Persian is considered to be an absolute pro-drop language in all persons without any limitation.

۱. [PRO] به مسافرت رفته اند و [PRO] خانه نیستند.

[PRO] travel and [PRO] are not home.

۲. دوست من به باشگاه نیامد. فکر کنم [PRO] فراموش کرده بود.

My friend didn't come to gym. I think [PRO] had forgotten.

۳. او به کتابخانه رفت و [PRO] کتاب را پس داد.

He went to the library and [PRO] returned the book.

1.3.2. PRO

PRO is a kind of pronoun that is not uttered nor formed in a clause, thus, in linguistic studies it is considered an *expletive*. PRO is mostly found in subject position of non-finite clauses and it is directly governed by agent or patient of the clause. The abstract presence of PRO in non-finite clauses makes a lot of problems in *binding and government theory* solvable.

Here, is the list of the main theories that proves the presence of PRO in a language:

1. Extended Projection Principle

2. Theta theory and theta roles

3. Government and binding theory

4. Agreement theory

This study aims at proving the presence or absence of PRO in Persian language. To do so, PRO is studied in active and passive voices of Persian clauses to represent the verbal treatments of Persian language. By verbal treatment, the author means if Persian verb allow PRO to be existed in these clauses. In the following chapter, some of the most remarkable theories about PRO are presented.

2. Review of literature

The primary studies on PRO was conducted by Chomsky in 1960s. Then, other linguists such a Rosenboom (1967), Horestein(1997), Boix(2003) and some other more, found interesting and considerable results in this field. In *generative grammar*, Chomsky (1965) distinguishes PRO from little pro. In his theory, he names PRO as a member of expletives. He believes that PRO is only found in non-finite clauses. In Chomsky's theory, if PRO is the subject of non-finite clause, it is governed by the subject of finite clause. But in his 1968 *Government and binding theory*, in some cases PRO is not governed by the subject of finite clauses. To prove the existence of PRO, different theories have been presented in Syntax. As mentioned earlier, the most remarkable theories are *Extended Projection Principle*, *Theta Theory*, *Government and binding theory and Agreement*.

Ritzi (1982) has carried out a study on PRO and pro drop theory. In his theory, there are two parameters for PRO drop languages. The first parameter is the existence of expletive null-subject pronoun and the second parameter is ***. Through studying these parameters, language treatment is explainable. He concludes that in some languages, both parameters are negative and thus, PRO does not exist. English and French are among these languages that are also non-pro drop languages. There are some languages that both parameters are found positive. These languages are absolute pro-drop languages such as Greek and Italian. There are also some languages that the first parameter is positive and the second one is negative. Ritzi believes that these languages treat positively to null-subject pro. Dutch and German are among these languages. Totally, Ritzi has divided languages in two groups of pro-drop and null-subject.

Permuter (1971) has carried out another study on PRO. According to Permuter's theory;

There are two classes of languages. The first class of languages are those in which surface structure is obliged and the second class of languages lack surface structure. The first group are called class A and the second group are called class B languages. According to Permuter, in some languages it is essential that subject pronoun be uttered directly but in some other languages not. Group A languages are non-pro drop and group B are pro-drop languages. English and French are class A languages while Arabic and Hebrew are class B languages.

2.1. Studies on PRO in Persian language

Persian scholars also have done studies on PRO and non-pronounced elements of language. Moeinzadeh and Jahromi in their study in (2007) found remarkable conclusions about PRO in Persian language.

The existence of PRO in Persian is debatable. That is probably due to non-finite clauses and non-governed position in Persian structure. Actually, non-finite clauses do exist in Persian but some classical theories introduce it as a kind of noun. Even current studies on PRO have not proved it's existence.

Darzi (2001) analyzes PRO in Persian language. He believes that complement in non-finite clauses can sometimes precede non-finite verbs and may also locate after them. He classifies non-finite clauses in two groups. In first class of non-finite clauses, the complement is located after non-finite verb. These clauses lack PRO. The second class includes clauses in which complement precedes non-finite verb. Darzi believes in these clauses, PRO is the nucleus of non-finite verb. Thus, according to Darzi PRO doesn't exist in clauses that non-finite verbs precede complement.

Motavalian (2014) has carried out a study on pro-drop parameter in Persian language. He considers pro-drop parameter as a limitation that makes it necessary for clauses have a subject. According to this parameter, PRO exist in pro-drop languages in finite clauses. He divides languages in two classes of pro-drop and non-pro drop languages. In this article, he describes pro-drop languages and discusses Rizzi's theory. He believes that Persian doesn't agree with Rizzi's criteria's for pro-drop languages and expletive elements. In the following example, He indicates the use of PRO in Persian language.

۴. [PRO] همه ی کارها را انجام داد و [PRO] اداره را ترک کرد.

[PRO] did all the works and [PRO] left the office.

2.2. Verb classes in Persian

Cheraghi (2014), according to Craft's classification of verbs, classifies Persian verbs in 4 groups.

A: The first class of Persian verbs are state verbs. Verbs such as *danestan* (know), *bavar kardan* (believe), *doost dashtan* (love), *motanaffer boodan* (hate), etc. These verbs are not use in progressive tenses and it's not possible to make them imperative.

B: The second group of Persian verbs describe events that happen in a moment. These verbs are called Achievement verbs. The begin and end of these verbs occur coincidentally. Verbs like *mordan* (die), *didan* (see), *residan* (arrive), etc are in among this class of verbs. These verbs can't be used in progressive tenses.

C: The third class of Persian verbs are action verbs. These verbs are used to describe activities rather than states. The main characteristic of these verbs is that they're used in progressive tenses. Verbs such as *bazi kardan* (play), *neveshtan* (write), etc are among this class of verbs.

D: The forth group of Persian verbs are Accomplished verbs. Rostin (2014) mentions the gradual feature for these verbs. Verbs such as *pokhtan* (cook), *sakhtan* (build), *neveshtan* (write), *sookhtan* (Burn) and *ersal kardan* (send) are among this class of verbs.

In table 2.1, all Persian verbs classes are indicated.

Table2.1.Persian verbs classes

Type of verb	Example
State verbs	love, believe, know
Achievement verbs	arrive, die, see
Action verbs	play, eat, drive
Accomplished verbs	Write, send, cook

3. Methodology

This article aims at studying the verbal treatment of Persian verbs in active and passive voice of finite and non-finite clauses confronting PRO according to cognitive linguistic. To do so, first, Persian verbs are classified. Then, these verbs are separately used in active and passive voices to see whether they react positively or negatively to PRO.

The methodology of this study consists of three steps. Thus, at the beginning, the data which are collected from different resources are classified and then analyzed and finally interpreted to discover the results.

The main hypothesis in this research is that due to pro-drop parameter of Persian, all classes of Persian verbs react positively to PRO in active and passive voice of finite and non-finite clauses. The data of this research has been compiled from linguistic journals, political papers, story books, etc. The main hypothesis of this research has led to forming three subsidiary hypothesis.

1. In Persian as a pro-drop language, PRO acts similarly in finite and non-finite clauses.
2. PRO acts similarly in active and passive voices of Persian clauses.
3. Persian verbs in finite clauses react positively to PRO.

To reach the main aim of this study, all the subsidiary hypothesis are analyzed. Then, according to the results of subsidiary hypothesis, the main hypothesis is analyzed. To do so, first the treatment of each class of Persian verbs in active and passive voice of finite and non-finite clauses is being considered.

3.1. Verbal treatment of state verbs confronting PRO

As mentioned earlier, state verbs are not used in progressive tenses. *Bavar dashtan* (believe) is an example of state verbs. To study its treatment while confronting PRO, it is used in the following example.

۵. اهل سنت، در زمینه ی خدای واحد، با شیعیان هم عقیده اند و [PRO] به نماز اعتقاد دارند.

5. Sunni people have common unique Lord with Shi'ite and [PRO] believe in worshiping.

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This clause is grammatically correct in Persian structure that indicate Persian state verbs in active voice of finite clauses react positively to PRO. The question that arises, is whether these verbs have the same treatment in non-finite clauses or not. In example 6, *danestan* (know) is used in an active non-finite clause.

*6. [PRO] دانستن حقیقت، کمک شایانی به حل مشکل می کند.

*6. [PRO] Knowing the fact, help to solve the matter.

Considering PRO in this clause, in not grammatically accepted in Persian structure. The possible answer to this hypothesis is that *knowing* is placed as the subject of the clause and doesn't allow another subject to be placed in the same position. But that's not the whole story. Let's see what will happen if state verbs are used as the subject complement of active non-finite clauses. In example 7, *danestan* (know) is used as a subject complement of non-finite clause.

۷. [PRO] با دانستن حقیقت، توانست مسئله را به سهولت حل کند.

7. [PRO] with knowing the facts, could easily solve the matter.

In this example, *with knowing the fact* is a non-finite clause that is used as the subject complement of the sentence. It is possible to consider PRO before that in Persian structure and change this clause into the following one.

۸. [او] با دانستن حقیقت، توانست مسئله را به سهولت حل کند.

8. [He] with knowing the fact, could easily solve the problem.

In example 8, There exists a PRO in the non-finite clause. Thus, it can be concluded that state verbs in active voice of non-finite clauses, can react differently to PRO depends on the verb. So, the verbal treatment of Persian state verbs in active voice of state verbs may be positive or negative. In the following paragraph, the verbal treatment of state verbs in passive voice would be studied.

To begin, the verbal treatment of state verbs in passive voice of finite clauses is studied. In example 9, *shenakhteh shod* (was identified) is used in passive voice of finite clause.

*9. در سال ۲۰۱۸، [PRO] تبریز به عنوان پایتخت فرهنگی جهان اسلام شناخته شد.

*9. In 2018, [PRO] was identified as the cultural center of Islamic world.

As mentioned earlier, since in passive voices, subject position is filled by the object of the active voice. PRO is supposed to be located in the subject or object position but it is obvious that there's no position for PRO to be placed in this clause. Thus, *was identified* reacts negatively to PRO which means PRO is not found in this clause. According to example 9, State verbs in passive voice of finite clauses have no position for PRO.

In this section, the verbal treatment of state verbs in passive voices of non-finite clauses is discussed. In example 10, being identified is used as a non-finite verbal phrase and has filled the subject position of the clause.

*10. [PRO] معرفی شدن تبریز به عنوان پایتخت فرهنگی جهان اسلام، موجب افتخار مردمان این شهر است.

*10. [PRO] being introduced as the cultural center of Islamic world, is considered an honor for people of this city.

Considering PRO in the subject position of example 10, is incorrect according to Persian structure. That is an evidence to claim that State Persian verbs in passive voice of non-finite clauses react negatively to PRO and there's no abstract position for PRO in these clauses.

In table 3.1, the verbal treatment of Persian state verbs in finite and non-finite clauses of active and passive voices is directly indicated.

Table 3.1. The verbal treatment of State verbs confronting PRO

Type of verb	Type of clause	Verbal Treatment
State verbs	Finite – Active	Positive
	Finite – Passive	Negative
	Non-finite – Active	Positive
	Non-finite – Passive	Negative

3.2. Verbal treatment of Achievement verbs confronting PRO

The main question in this section of the research is that if Achievement verbs react similarly as state verbs to PRO. To answer this question, Achievement verbs in active and passive voices of finite and non-finite clauses are examined.

To begin, Achievement verbs are studied in active voices of finite clauses. *Solh kardand* (Reconciled) is the first verb of this family which is used in example 11.

۱۱. یا علام آتش بس از سوی سازمان ملل، [PRO] به مدت سه روز با یکدیگر صلح کردند.

11. After announcing ceasefire by the UN, [PRO] reconciled for three days.

According to example 11, there were two countries in war. When such a sentence is told to a Persian speaker, s/he would easily understand that there exists a PRO as the subject of finite clause. According to Persian syntax, considering abstract PRO instead of direct subject of *THEY* in this sentence is grammatically correct and sounds natural.

To study PRO in Persian non-finite active clauses, a poet from Sokhane Shirin Parsi (2013) compiled by Siavash Kasraei is chosen. In this poet, the third clause is used as a non-finite active voice.

۱۲. کار کردن، کار کردن / آرمیدن / چشم انداز بیابان های خشک و تشنه را دیدن

12. Working, working / Relaxing / seeing the scenery of dry and thirsty deserts

The third clause of this poem is shown below considering PRO as the subject of the clause.

*13. [PRO] seeing the scenery of dry and thirsty deserts.

It is obvious that *seeing* which is a type of Achievement verb and is used in a non-finite active clause, reacts negatively to PRO since there's no reference for PRO to be referred to.

In order to analyze Achievement verbs in passive voice of finite clauses, *Shekasta* (break) is studied in example 14 that is a finite passive clause.

۱۴. بر اثر طوفان سنگین، درختان زیادی شکسته شد.

14. A lot of trees were broken because of heavy typhoons.

Example 14, is a finite passive clause. The cause of breaking trees is directly mentioned in the clause but considering PRO in this clause is grammatically wrong since Achievement verbs react negatively to PRO in finite passive clauses. According to Persian syntax, considering PRO on this clause leads to the existence of the following clause.

*15. [PRO] A lot of trees were destroyed because of heavy typhoons.

15.[Ø] A lot of trees were destroyed because of heavy typhoons.

According to Persian syntax, considering PRO in such clauses is not accepted and *Persian* speakers would easily recognize such clauses do not exist in *Persian* language. Thus, Persian Achievement verbs react negatively to PRO in finite passive clauses.

The final part of this section aims at studying the verbal treatment of Achievement verbs in passive voice of non-finite clauses. The Persian structure of non-finite passive voices of Achievement verbs is *being + past participle* such *asbaz kardan* (being open), *asabani shodan* (being angry), *shekasteh shodan* (being broken).

To study the treatment of these verbs, *being angry* is used in example 16.

۱۶. عصبانی شدن در چنین شرایطی، نشانه ضعف است.

16. Being angry in such situations is a weakness.

Considering PRO in this clause leads to the following clause.

17. [PRO]Being angry in such situations is a weakness.

It is easily understood that there exist a hidden your in the beginning of this clause which proves the positive reaction of Persian Punctual verbs to PRO in passive voice of non-finite clauses. So, *gorosneh shodane shoma* (your being hungry) is grammatically accepted by native speakers of *Persian* language and using such clauses in common among them.

But there are some other Achievement verbs that react negatively to PRO in passive voice of non-finite clauses.

۱۸. پدیدار شدن پرستوهای مهاجر، خیر از آمدن فصل بهار دارد.

18. Being appeared swallows, tells that spring is coming.

Considering PRO in example 18, is not grammatically accepted according to *Persian* syntax. That's because *swallow* doesn't allow the pronoun to be located in this clause. In other words, verbs don't have the capacity to accept both noun and pronoun.

By studying examples 16, 17 and 18, it is concluded that Punctual verbs in *Persian* may react differently to PRO which means in some cases PRO exist and in some other cases not.

In table3.2, the verbal treatment of Achievement verbs confronting PRO in active and passive voice of finite and non-finite clauses is indicated.

Table3.2. The verbal treatment of Achievement verbs confronting PRO

Type of verb	Type of clause	Verbal Treatment
verbs	Finite – Active	Positive
	Finite – Passive	Negative
	Non-finite – Active	Negative
	Non-finite – Passive	Positive or Negative

3.3. Verbal treatment of Action verbs confronting PRO

In this section of the article, the verbal treatment of action verbs in finite clauses while confronting PRO is studied. To do so, example 19 is considered. In this sentence, two action verbs are used. *Navakhtane moosghi* (playing instrument) and *Avaz khandan* (singing a song) are both action verbs which are used in a finite active clause.

۱۹. نه تنها [PRO] خیلی خوب پیانو می نوازد، بلکه [PRO] بسیار زیبا نیز آواز می خواند.

19. Not only [he] plays piano really well, but also [he] can sing beautifully.

In example 19, both verbs are action verbs which are used in active voice of finite clauses. According to *Persian* syntax, PRO exists in such clauses. It can be concluded that PRO in both clauses, refers to the same person that is not directly mentioned in these clauses. Thus,

considering PRO in this sentence, is correct according to Persian structure that means Persian action verbs react positively to PRO in active finite clauses. In the following paragraphs, the verbal treatment of *Persian* verbs in active voice of non-finite clauses is studied.

In example 20, *navakhtane moosighi* (playing instrument) is a non-finite clause that its reaction to PRO is being studied.

۲۰. نواختن موسیقی، سرگرمی مور علاقه اوست.

20. Playing music is his favorite pastime activity.

In this clause, *navakhtane moosighi* (playing instrument) is a finite clause that is used as the subject of this sentence. Considering PRO in such clauses is not grammatically true according to *Persian* syntax since 1. There's no position for PRO and 2. There's no referent that PRO refers to. So considering PRO in such clauses leads to the following sentence that is not correct according to *Persian* structure.

*21. [PRO] playing music is his favorite pastime activity.

By studying example 20 and 21, It is concluded that Persian action verbs in active voice of non-finite clauses react negatively to PRO that means PRO does not exist in such clauses. The following paragraph indicates the treatment of action verbs in passive voices of finite clauses.

In example 22, in the second clause, passive voice of the verb *khonak shodan* (being cool) is used. By considering PRO in this clause, the following sentence is formed.

۲۲. فنجان قهوه را لبه ی پنجره قرار داد تا [PRO] خنک شود.

22. He put the cup of coffee by the window [PRO] to be cooled.

In the second clause of example 22, there exists a PRO that refers to *cup* in the previous clause of this sentence. When someone confronts with such an example, s/he would easily understand that PRO exists as the subject of this clause.

In example 23, *add* is used in a finite passive clause.

۲۳. به تدریج بر جمعیت حاضر در ورزشگاه اضافه می شود.

23. The number of people in the stadium is added gradually.

Considering PRO in this clause would lead to the formation of the following clause.

*24. [PRO] the number of people in the stadium is added gradually.

But such clause is not grammatically correct according to Persian syntax and no PRO exists in the correct form of this clause. Thus, the correct form of this clause is indicated in 23.

By studying examples 22 and 23, it is concluded that action verbs in passive voice of finite clauses react differently to PRO which means in some cases, PRO exists and some other does not. So, it is not possible to claim that these verbs always have positive treatment to PRO. In the last part of this section, the verbal treatment of Persian action verbs in passive voice of non-finite clauses is analyzed.

Garm shodan (being heated) is an action verb that in the following clause, is used in passive voice of non-finite clause.

۲۵. با گرم شدن شیر، باکتری های مضر کشته می شوند.

25. being heated, the harmful bacterias in the milk are killed.

Considering PRO in this clause is absolutely wrong according to *Persian* syntax since *heating milk* has filled the subject position of the whole clause and it is non-finite. Thus, *Persian* action verbs react negatively to PRO in passive voice of non-finite clauses.

In table 3.3, the verbal treatment of action verbs confronting PRO is indicated.

Table 3.3. The verbal treatment of Action verbs confronting PRO

Type of verb	Type of clause	Verbal Treatment
Action verbs	Finite – Active	Positive
	Finite – Passive	Negative or Positive
	Non-finite – Active	Negative
	Non-finite – Passive	Negative

3.4. Verbal treatment of Accomplished verbs confronting PRO

Accomplished verbs in Persian express an activity that is ongoing and ends at a special time spot. Accomplished verbs are divided in two groups of direct and indirect verbs. According to Vandler and Rustin (2004), these verbs are both gradual and eventual which means they move toward an end and finish. In Persian language, verbs such as repair, cook, build, write, buy, burn, send, call, etc are considered to be accomplished verbs. Accomplished verbs can be used in both imperative and progressive voice. In the following paragraphs, the verbal treatment of accomplished verbs confronting PRO is studied. The aim of this section is to see whether accomplished verbs in *Persian* language have a similar reaction to PRO or they may behave differently.

To begin, the verbal treatment of accomplished verbs in active voice of finite verbs is studied. In example 26, in the second clause, *ta'mir kardan* (repair) is an accomplished verbs that begins and ends in a certain time.

۲۶. لوله کشی که به همراه پدر آمده بود، [PRO] گرفتگی خروجی سینک ظرفشویی را تعمیر کرد.
26. The plumber who came with dad, [PRO] repaired the sink in the kitchen.

In example 26, PRO is considered to be placed in the subject position of the second clause that refers to *plumber*. In fact, PRO or *he* is abstractly present in this clause. Thus, the hypothesis which claims accomplished verbs in active voice of finite clauses reacts positively to PRO is accepted according to *Persian* syntax.

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In example 27, *khordan* (eating) is used in a non-finite active clause. By studying this clause, it is easily determined that there exists no position for PRO in this clause and considering PRO in such clauses is not accepted according to *Persian* structure.

۲۷. یکی از آداب سنتی ایرانیان در شب عید نورز، خوردن سبزی پلو با ماهی است.

27. Eating fish and vegetable rice is an Iranian tradition in New year's Eve.

Considering PRO in the subject position or object position of such clauses in *Persian* language leads to the existence of two elements in these positions that is rejected according to *Persian* structure.

But considering PRO in the position of indirect object is something different.

۲۸. یکی از آداب سنتی ایرانیان در شب عید نورز، خوردن سبزی پلو با ماهی [PRO] است.

28. Of the Iranian traditions in New year's Eve, is [PRO] eating fish and vegetable rice.

According to *Persian* syntax, in such clauses it is easily understood that *they* abstractly exist but it is not uttered.

By studying examples 27 and 28, it is concluded that accomplished verbs in *Persian* language may react positively or negatively to PRO depending on the position in which it is being studied. In the following paragraph, the verbal treatment of *Persian* accomplished verbs in active voice of finite clauses is studied.

In the second clause of example 29, *kharideh shod* (was bought) is the verb that is active and finite. PRO is considered in the subject position of the clause that refers to *car* that is the subject of the first clause.

۲۹. ماشین گران قیمتی که در نمایشگاه بود، [PRO] توسط یک فرد ثروتمند خریده شد.

29. The expensive car that was in the auto gallery [PRO] was bought by a rich man.

In fact, according to *Persian* syntax, if PRO is considered as the subject of the second clause, it is grammatically correct because it refers to *car* that is the subject of the first clause.

Another accomplished verb that is studied in this section of the study is *call*. In example 30, *tamas gerefteh khahad shod* (will be called) is an accomplished verb that is used in a passive voice of finite clause.

۳۰. لطفا این فرم را پر کنید. جهت مصاحبه، با شما تماس گرفته خواهد شد.

30. Please fill in this form. You will be called for the interview.

In example 30, there is no position for PRO not only in the first clause, but also in the second clause. Since it is passive and also there's no referent for PRO to be referred to. Thus, the considering PRO in such clauses is not correct according to *Persian* syntax.

By studying examples 29 and 30, it is concluded that accomplished verbs in Persian language react differently in passive voice of finite clauses. In some cases like *kharideh shod* (was bought), accomplished verbs react positively to PRO but in other cases like *tamas gerefteh khahad shod* (will be called), these types of verbs react negatively to PRO. In the final part of section 3.4, the verbal treatment of accomplished verbs confronting PRO in passive voice of non-finite clauses will be studied.

In example 31, *pokhteh shodan* (being cooked) is used in passive voice of non-finite clause. The main emphasis of the clause is on action not the doer of the activity. In such clauses, the hypothesis that considers PRO as the abstract subject or object of the clause is rejected according to *Persian* syntax.

۳۱. پخته شدن طولانی مدت گوشت منجر به از بین رفتن پروتئین های آن می شود.

31. Being cooked for a long time removes the proteins of the meat.

In this clause, *pokhteh shodan* (being cooked) is non-finite and reacts negatively to PRO. In table 3.4, the verbal treatment of accomplished verbs in *Persian* language confronting PRO is indicated.

Table 3.3. The verbal treatment of Accomplished verbs confronting PRO

Type of verb	Type of clause	Verbal Treatment
Accomplished verbs	Finite – Active	Positive
	Finite – Passive	Negative or Positive
	Non-finite – Active	Negative or Positive
	Non-finite – Passive	Negative

4. Results and conclusions

In this section of the article, the verbal treatment of four classes of *Persian* verbs in four types of clauses is briefly explained. As mentioned earlier, according to Vandolor and Austin (2004), *Persian* verbs are classified in four groups which are state verbs, achievement verbs, action verbs and accomplished verbs. In this study, the verbal treatment of these classes is studied in four types of clauses which are [+finite, +active], [+finite, -active], [-finite, +active], [-finite, -active] and the conclusions are mentioned in the following paragraphs.

4.1. State verbs

State verbs in Persian language express stative situations and describes statues that don't usually alter during the time. *Bavar dashtan* (believe), *Doost dashtan* (love), *Motanaffer boodan*(hate) ,... are examples of *Persian* state verbs. By studying the verbal treatments of state verbs confronting PRO, the following results were revealed.

In active voice of finite clauses, state verbs have reacted positively to PRO and according to Persian syntax, the presence of PRO in such clauses is provable while in passive voice of finite clauses, the presence of PRO is rejected and it is against the Persian structure to consider an abstract position for PRO I such clauses. In active voice of non-finite clauses, PRO is proved to be abstractly present while in passive voice of non-finite clauses, in Persian language, there's no position for PRO to be abstractly present in the clause and Persian verbs react negatively in such cases.

4.2. Achievement verbs

These verbs happen at the moment and don't last. They don't have the capability to be used in continuous form. Like other classes, these verb are divided in two groups of direct and indirect verbs. *Mordan* (die) and *residan* (arrive) are examples of achievement verbs in *Persian* language. By studying the verbal treatment of achievement verbs confronting PRO, the following results were revealed.

The achievement verb in active voice of finite clauses react positively to PRO which means PRO is abstractly present in the subject or object position of the clause while in active voice of non-finite clauses, these verbs react negatively to PRO and considering RPO in such clauses, is rejected according to Persian syntax. Considering PRO in passive voice of finite clauses with achievement verbs is provable but in passive voice of non-finite clauses, the presence of PRO is debatable. In some cases, PRO exists and in some other cases, no PRO is found in such clauses.

4.3. Action verbs

Action verbs are the most commonly used verbs in *Persian* language. Action verbs are used to describe active situations which alter by passing the time. These verbs are used in progressive tense and don't necessarily end. Verbs such as *dauidan* (run), *goftogoo kardan* (talk), *avaz khandan* (sing) and *ranandegi kardan* (drive) are among this class of verbs. The verbal treatment of *Persian* action verbs confronting PRO is described below.

In active voice of finite clauses, action verbs react positively to PRO like two previous groups. In active voice of non-finite clauses, action verbs react negatively to PRO and there's no abstract position for PRO in such clauses to be identified. In active voice of finite clauses, action verbs react differently to PRO which means in some cases, PRO was proved to be abstractly present in the clause while in other cases, no position was found for PRO. And finally, in passive voice of non-finite clauses, action verbs reacted negatively to PRO.

4.4. Accomplished verbs

The final class of *Persian* verbs studied in this article are accomplished verbs. The main difference between these verbs and action verbs is in the final spot. Action verbs don't necessarily end at a special time but accomplished verbs must end at a definite time spot. They are similar to action verbs in case of activity. Both classes express situations in which the verb is active not state. Verbs like *tamir kardan* (repair), *sakhtan* (build), *pokhtan* (cook) and *khordan* (eat) are among this class of verbs. These verbs move toward an end.

By studying accomplished verbs, it is concluded that in active voice of finite clauses, this class of verbs react positively to PRO. Thus, all groups of Persian verbs (state, achievement, action and accomplished) react similarly to PRO in active voice of finite clauses. In active voice of non-finite clauses, accomplished verbs react negatively to PRO. In passive voice of finite clauses, accomplished verbs have different treatment toward PRO which means in some cases they react positively and in some other cases they react negatively to PRO. And finally, in passive voice of non-finite clauses, accomplished verbs react negatively to PRO that means no position is identified for PRO in these clauses.

Table 4.1 indicates the verbal treatment of *Persian* classes of verbs confronting PRO in active and passive voice of finite and non-finite clauses. According to this table, different classes of *Persian* verbs have different treatment toward PRO depending on the type of clause in which they are used.

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Table 4.1. The verbal treatment of Persian verbs confronting PRO

Type of Verb	Type of Clause	Treatment to PRO	Type of Verb	Type of Clause	Treatment to PRO
State verbs	+F , +A	+	Achievement verbs	+F , +A	+
	+F , -A	-		+F , -A	-
	-F , +A	+		-F , +A	-
	-F , -A	-		-F , -A	+ / -
Type of verb	Type of Clause	Treatment to PRO	Type of Verb	Type of Clause	Treatment to PRO
Action verbs	+F , +A	+	Accomplished Verbs	+F , +A	+
	+F , -A	+ / -		+F , -A	+ / -
	-F , +A	-		-F , +A	+ / -
	-F , -A	-		-F , -A	-

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REFERENCES

- Anvari, G., (1994), A textbook on Persian structure, 2th edition, Fatemi Publishment
- Batani (2015), Description of Persian structure, Tehran: Amir Kabir University
- Darzi (2005), Syntax Analysis, Tehran, Samt Publishment
- Meshkaddini (2009), PRO in Persian, Collection of articles
- Bloomfield, L., (1933) Language. New York: Henry Holt.
- Chomsky, N., (1957). Syntactic structures; Janua Linguarum Series Minor. The Hague: Mouton.
- (1995). The minimalist program. Cambridge, MA: MIT Press.
- Croft, W., (2012). Verbs: aspect and causal structure. Oxford university press.
- (2001) Radical Construction Grammar: Syntactic Theory in Typological Perspective. Oxford: Oxford University Press.
- Freidin, R., (2007). Generative grammar: theory ad history; Routledge.
- Haegeman. L., (1994). Introduction to government and binding theory; 2nd Edition. Oxford: Blackwell.
- Holmberg, A. & Urpo N., (2002). "*Expletives, Subjects, and Topics in Finnish*". Subjects, Expletives, and the EPP. Svenonius, P. (ed). New York, 13.Oxford: Oxford University Press. pp. 71-105.
- Holmberg, A., (2005). "*Is There a Little pro? Evidence from Finnish*". Linguistic Inquiry. No 36. pp. 533- 564
- Hornstein, N., (1997). Control in GB and Minimalism. Glot International 8.2. 3–6.
- (1999). Movement and Control. Linguistic Inquiry 30. 69–96.
- Jackendoff, R., (1983) Semantics and Cognition. Cambridge, MA: MIT Press.
- Langacker, R., (1987) Foundations of Cognitive Grammar, Vol I. Stanford, CA: Stanford University Press.
- (1991) Foundations of Cognitive Grammar, Vol II. Stanford, CA: Stanford University Press.

A study on the verbal treatment of finite and non-finite clauses in Persian active-passive sentences confronting with PRO according to cognitive linguistics [In English]

- Levin, B., (2005). Semantic prominence and argument realization. Stanford university.
Newmeyer, F. J., (1996). Generative linguistics: a historical perspective; Routledge.
Rizzi, L., (1982). Issues in Italian Syntax. Dordrecht: Foris.
Vendler, Z., (1957). Verbs and times. Philosophical Review LXVI: 143-60.
..... (1967). Linguistics in philosophy. Ithaca, NY; Cornell.