



## Argument structures of Persian intransitive verbs

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### ABSTRACT

This paper investigates types of intransitive verbs in Persian. Although six types of intransitive Persian verbs have one argument in their argument structure, they differ to their derivation. We divide them into unergative, unaccusative, passive, attributive constructions, middle constructions and ergative. To classify intransitive Persian verb we use the operations like argument suppression, argument structure, argument deletion and externalization, external argument and internal argument (Williams 1981, Marantz 1984). This research supports the absolute theory of argument structure (Jackendoff 1972, Grimshaw 1990, Chung 1993) also this study cast light on the semantic and syntactic aspects of those constructions.

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### Introduction

Argument structure introduced to linguistics through propositional logic. Williams (1981:7) defines argument structure as the list of arguments of predicate. A predicate describes an event or situation in which some participants are required.

(1) (a) Armin English study prog – does.

Armin English study prog – does.

Armin studies English.

(b) Armin khabī - d.

Armin sleep – past.

Armin sleep.

The predicate in (1a) “motalea?h = study”, describes an event in which two participants are required, a person who studies, and an entity which is studied. In (1b) the predicate “khabī – d = sleep”, requires only one argument. In (1a) Armin receives semantic function of “Agent” while Armin in (1b) has experiencer semantic function.

Perlmutter (1978) showed that intransitive verbs are not a homogeneous group. This paper shows that this subject is also true in Persian. Classification of Persian intransitive verbs is an intersubject among Iranian linguists. Rasekhmahd (2007:1-20) states that inchoative verbs are in contrast to causative verbs. Also he claims that three features distinguish Persian verbs, namely transitivity, voice and causativity and argues that being inchoative is not opposed to active or passive, in other words, it is not a kind of voice. Dabirmooghadam (1987:33) argues that Persian verbs have passive, active and transitivity voice. Haghsheenas (2006:74) states that Persian has active, passive and middle, unergative, attributive, and incorporative construction due to their argument as intransitive verbs. Jabari (2009:92) argues that Persian has three voice: active, passive and intransitive. He classifies middle constructions as intransitive verbs. Haghsheenas and etl (2005:45) introduce transitivity as one of the main features of Persian verbs and divided them into transitive and intransitive verbs.

Following Haghsheenas and etl (2005) we contrast intransitive to transitive verbs and focus on intransitive argument structure.

### Type of arguments

A predicate describes an event or situation in which some participants are required. Let's consider the following sentence:

(2) Armin torā<sup>1</sup> pare kard.

Armin ballspes: obj – maker torn - do

Armin torn the ball.

The predicate in (2) describes an event in which two participants are required, a person who tears, and an entity which is torn

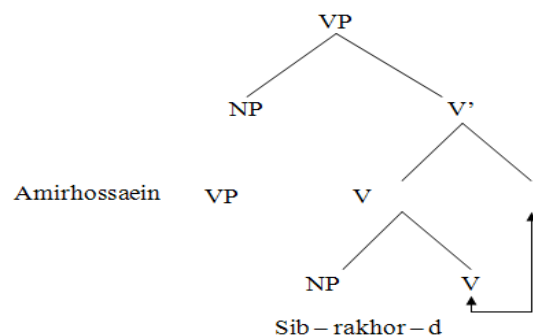
### Internal versus External argument

Based on syntactic realization, we can classify argument types as external and internal argument. External argument is an argument which is realized outside the maximal position of the predicate, where as internal argument is one realized inside the maximal projection of the predicate (Chomsky 1981, Williams 1980).

In Chomsky's minimalism program (1995) external argument represents in specifier of VP, while internal argument is the sister VP as shown in below diagram.

(3) Amir hossein sib – ra khor – d.

Amir hossein apple – spes:obj: marker eat – past.



<sup>1</sup> - ra = specific object marker in Persian to more information refers to karimi (2005)

Based on baker's UTAH theory, theme is the sister of V and agent is generated in the spec of VP and receive their semantic functions. Myayawa (2002) argues that argument structure of verbs determines word order of sentences.

### Direct and indirect argument

Another type of arguments are direct and indirect argument. This distinction is based on the appearance of prepositions; if an argument is realized with a preposition, it is an indirect argument, and if an argument is realized without a preposition, it is a direct argument (Marantz: 1984).

(4) Reza daftarra bar ruyemizgozaš - t.

Reza hotebookobj - marker on surface table put - past

In (4) "bar ruyemiz" is indirect argument of "gozaštan" predicate and "daftarra" is direct argument of it. Zubizareta 1987 and Marantz 1984 use the following notations to distinguish the types of arguments.

(5) Gozaštan: X (y z)

In (5), the verb "Gozaštan" has three arguments, X, y and Z. the external argument X is outside the bracket and internal arguments are inside, and the direct argument y is underline.

Another types of arguments include suppressed, deleted arguments and event arguments. Passive is a process which change internal argument of a verb into suppressed argument. Grimshaw (1990) defines passive as a process through which an argument becomes adjunct.

(6) Amir livanraškas - t.

Amir glass - obj maker broke - past.

Amir broke the cup.

(7) Livanškastešod.

Glass broke become

In (7) predicate "škaste" has a suppressed argument.

Which shows by following notation:

(8) škaste : (y) (X)

The star notation used in literature to show that this predicate has one suppressed or implied argument.

So far, we have discussed several types of arguments. How we briefly mention argument structure theories. It is generally assumed that arguments are hierarchically structured, not just an unordered list. That is, each argument has a hierarchical status, compared with others which is known as the thematic hierarchy where the thematic roles are used. The following show some versions of the thematic hierarchy:

(8) Thematic hierarchy

a. <Agent, location/source/ Goal, Theme> (Jackendoff 1972)

b. <Agent, Experiencer, location/source/ Goal, Theme> (Grimshaw 1990)

c. <Agent, theme, Goal, obliques> (Larson 1988)

d. <Agent, theme, Goal/benefactive/ location> (baler 1989)

As show in (8), there are some variations of the thematic hierarchy. For example, Jakendoof (1972) and grimshaw (1990) assume that goal is higher than theme, whereas Larson (1988) and Baker (1989) That theme is higher than goal.

Grimshaw and Li (1990) assume that the status of arguments is not relative, but absolute. That is, an argument has it's own status or value, with out being compared with others. Thus, when there is a single argument, it has its own hierarchical/ value. In the next section we discuss unergative and an accusative verbs.

3. unergative and an accusative

(9) a. Amirhosseinkarkar - d.

Amirhossein work do - past.

Amirhossein worked.

b. sinalabkhandzaad.

sina smile do - past.

sina smiled.

(10) Traffic rawan ?ast.

a. Traffic smooth is :3sg.

Traffic is smooth.

b. hawasardšod.

The weather cold become: present.

The weather becomes cold

Semantically, the unergative sentences in (9) describe some actions initiated by the agentive subject where as the unaccusative sentences in (9) describe non - agentive situations. Thematically, the subjects of the subjects of the unergatives in (9) are agent or actor, while those in (10) are theme.

In terms of argument structure, the unergative verbs in (9) take external argument but those in (10) internal argument. The argument structures of the two types of verbs are represented as

(11) a. unergative : X<>

b. unaccusative : <X>

some person unergative predicates are:

Jangidan, bazikardan, šenakardan, pars kardan ....

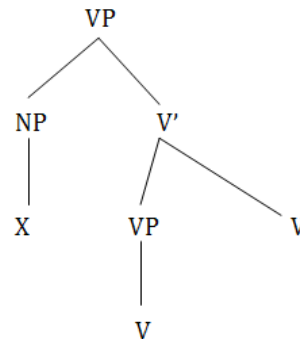
(to fight) (to play) (to swim) (to bark)

Some Persian unaccusative predicates are:

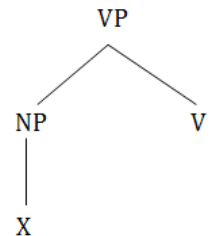
Oftadan, wožoddaštan, rokhdadan ....

The two types of argument structures are projected to different syntactic structures, as show below:

a. unergative



b. unaccusative



Hale and keyser (1993) propose that unergative predicates are intrinsically transitive. They state that an unergative verb takes an object incorporates to V, becoming an intransitive verb on the surface. But, we should consider that arguments of unergative and unaccusative predicates project in different syntactic positions which challenge Hale and keyser assumption. Chung (1998), Rappaport and Levin (1992) propose that -er suffix attaches to unergative verbs not unaccusative, barker, \*Collasper. In Persian, "Nade" and "gar" suffixes attach to unergative verbs and drive subject noun phrases, but not unaccusative verbs. Bazigar\* oftadandeh.

(player) (collapser)

So, we can argue that, syntactically unergative predicates have one external argument as "subject", while the only argument of unaccusative predicates project as object.

### Passive

In literature, there is long time debates on the existence of passive in Persian. We only mention a few. Dabirmooghadam (1987) assumes that Persian has syntactic passive, while Karimi (2005) and Darzi (1996) disagree. Karimi (2005:75) consider so called passive constructions in Persian as complex predicate which the objective is non - verbal element of complex predicate.

(13) angol - ha be parviz dad - šod.

Those - flower - plural to parvizdelive - become.

Rasekhmahand (2007:4) assume active and passive as on voice if voice defines as the syntactic valency of verbs. None of

Iranian linguists use argument structure to explain passive process in this language.

Property of passivization is that it suppresses the external argument.

(14) a. Amir ghazarakhor – d.

Amir food – obj marker eat – past.

Amir ate the food.

b. ghazakordešod

Food eat becom.

The food was eaten.

In (14) "kord" has two arguments :amir as external argument (Agent here) and "ghazara" internal argument ( theme here ). While "kord"šod "only has one internal argument "ghaza" so passive change the argument structure of predicate here.

Koradankordšodan  $\xrightarrow{\quad\quad\quad}$   
X(Y) (Y) (X)

The external argument suppressed which is represented as X which doesn't have the status of argument add its appearance as adjunct is optional which normally doesn't appear in Persian. Robert (1987) that the by- phrase is thematically an argument but structurally is an adjunct

We can infer that Persian has passive construction because suppressed argument can control pro which Grimshaw called it argument-adjunct.

(16) mašinforkordšod ta pro khane be khara-d car sell become to pro house subjunct buy – past.

In (16) the suppressed argument controls pro which reveals that this argument is syntactically active although doesn't have visible manifestation.

#### Attributive or incorporative construction

In Persian there are constructions with one argument which is called attributive because one property attributes to an entity by their predicates. Ltaghabin(2007:21) believes that attributive constructions in Persian have one argument in their argument structures. She states six reasons for her assumption.

She argues that attribute verbs are not the only functor but noun preposition and conjunctive meaning of verb have this function.

(17) Ali agha ast.

Ali wise is.

We argue that adjective, preposition or noun incorporates with attributive verbs and altogether determines valency of predicate with remains Baker's incorporation theory(1988).

(18) minazibaast.

Mina pretty is.

Zibaast : <X>

3-3 middle constructions

Middle is meant to be a voice between active and passive. Haghbin (2005) states that Persian has three voices :

Active, passive and middle. She argues that middle construction lexically resembles to active verbs but syntactically and semantically resembles to passive constructions.

(19) a. a šišera mi- šekanad. (active)

Shel he glass obj- marker dur- break-past.

b. šiše be rahatimiškanad. (middle)

glass as easily dur- break.

Glass break easily.

c. šišebarahatišekastešekastemišawad. (passive)

glass as easily breakendur- becom.

glass is broken easily.

The middle sentences describe some property of surface subject. For example in (19-b) describes the property of the glass being broken easily middle constructions always have the corresponding transitive construction as shown by (19-a) above.

Middle construction derived from their active equivalents and have the following properties :

1) Delete the external argument

2) Internalize on internal argument

(20) X (Y)  $\xrightarrow{\quad\quad\quad}$  Y()

There are two approaches toward the deletion of argument:

(1) syntactic – movement approach which believes that no argument move.

Kayser & Ropper proposed this approach.

2. non- movement approach which based on it middle construction doesn't allow long distance movement or expletive insertion. Ackema & Schoorlemmer defend this approach. Middle constructions infer an event which is done by an agent

(21) šiše be rahati mi - šekanad.

Glass as easily dur – broke.

(22) rang- e moye- ali- taghirkard.

Color- EZ hair – alichange did.

The color of Alis hair changed.

(23) Ali rang-e my hayaš rataghir dad.

Ali color-ez<sup>2</sup> hair – plura- his –obj – marker change did.

Ali changed his hair's color.

Ergative verbs in Persian derive from causative constructions. They describe an event not a property like middle constructions and have eventive reading.

One important property of the ergative verbs is that they have corresponding transitive construction as shown below.

24. a. parchamtakankord. (ergative)

b. rezaparchamratakan dad. (transitive)

so, one can assume that ergative verbs derived from the transitive verbs without any overt morphological change.

(25) illustrates the argument structure change of a typical transitive verb in ergative formation.

(25) ergative formation

(1) deletion of the external argument

(2) externalize an internal argument

X<Y>  $\xrightarrow{\quad\quad\quad}$  Y<>

#### Conclusion

In this paper we tried to reach a clear set of groups of intransitive Persian verb based on syntactic derivation and their morphological properties we grouped intransitive Persian verbs in six sub- group which all of them have one argument in their argument structures. An ergative and an accusative verb are undriven one – argument verb in Persian. Passive verbs in Persian are derived through suppressing external argument, we provided evidence against Karimi (2005) and Darzi (1996) who claimed that Persian doesn't exhibit syntactic passive. Because the suppressed argument can control pro, attributive construction is another intransitive verb in Persian. We assumed that Persian has middle construction, following Haghshenas (2005) ergative predicate is another class of intransitive verbs which derived from their accusative corresponding as Rasekhmahand (2007) revealed.

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