

# Do psychological constructions in Persian involve complex predicates?

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## Abstract

Constructions introduced in this work have been introduced as Impersonal/Subject-less in the Persian literature involving compound verbs. I explore them from the point of view of Psychological constructions and show that they do not involve compound verbs. I capture properties of Persian psychological constructions by proposing that they contain a *Tense* requirement and involve *Applied Arguments*. I depart from previous works (Pylkkänen 2000, 2002) which argue that applicative heads can take only a vP or a DP as complement. I propose a new category of Applicative head, *Super High Applicative* head, which takes a TP (a full proposition) as complement. Constructions studied in this work provide further evidence for the divorce of nominative licensing and verbal agreement proposed by Haerberli (2002), Pesetsky and Torrego (2001, 2004, 2007) and Svenonius (2001), among others.

**Keywords:** Applicative heads, Psychological constructions, Agreement, Checking/valuing

## 1 Introduction

This paper studies certain psychological constructions in Persian which have been argued by Barjasteh (1983), among others, to involve compound verbs. These constructions are controversial because they seem to constrain the subject-verb agreement pattern of Persian. It is a common belief that in Standard Persian verbs agree in Number and Person with the subject (Khanlari (1980), Meshkat al-Dini (1987), among others). This is shown in (1).

- (1) *an-ha be iran ræft-ænd*  
that-PL to Iran went-3PL  
'They went to Iran.'

In (1), the verb *ræft-ænd* (went-3PL) agrees in Person and Number with the subject pronoun, *an-ha* (they).

However, experiencers in subject position in constructions with certain Psychological verbs in Persian do not trigger agreement on the verb. This is shown in (2).

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- (2) *ma xoš-eman amæd-Ø*  
 we pleasure-1PL came-3SG  
 ‘We liked (something)’ / ‘(Something) pleased us.’

In (2), the verb *amæd-Ø* (came) is morphologically marked third person singular while the experiencer in subject position, *ma*, is morphologically marked first person plural. The experiencer appears in nominative form, which provides evidence for the divorce of verbal agreement and nominative licensing. Constructions such as (2) have been introduced as “Impersonal” (Ghomeshi 1996, Thackson 1983) or “Subject-less” (Karimi 2005) in the literature involving Compound Verbs. I demonstrate that these constructions do not involve compound verbs. Inspired by Shibatani and Pardeshi (2001) and Heycock and Doron (2003), I propose that the experiencer is not the main argument of the verb; rather, it takes a sentential predicate as its complement. The next section explores properties of these constructions of interest.

## 2 Persian Psychological Constructions

Similar to Psychological constructions in Italian or Hebrew (Belletti and Rizzi (1988), Landau (2003), among others), Persian Psychological constructions [henceforth Psych constructions] always denote a psychological state of the experiencer and most resemble Class III or the Italian *piacere* type (*nominative* theme, *dative* experiencer: ex. *The idea appealed to Julie*). Unlike most experiencers, which are in dative/oblique form, the experiencers in Persian are in nominative form<sup>1</sup> while the verb appears with third person singular. Persian Psych constructions may have a regular counterpart in which the agreement restriction does not occur. This contrast is shown in (3)–(4).<sup>2</sup>

- (3) (*ma<sub>i</sub>*) *to ra/ro [dust dar-im<sub>i</sub>]*  
 we you ACC friend have-1PL  
 ‘We like you.’ [We have you (as) a friend]
- (4) (*ma<sub>i</sub>*) *æz to [xosh-emun<sub>i</sub> umæd-Ø]*  
 we from you pleasure-1PL came-3SG  
 ‘We liked you.’ [you appealed to us]

Example (3) displays an ordinary agreement pattern and has no complications. The verbal constituent of the compound verb *dust dar-im* agrees with the subject *ma* (we). On the contrary, in example (4), the DP in sentence initial/subject position *ma* is a first person plural pronoun and does not induce agreement on the verb which appears with third person singular/default morphology. Lack of agreement makes constructions such as (3) interesting. Another difference between (3) and (4) is that when the optional DP in sentence initial position is present in (4), it is always *co-referential*

<sup>1</sup>This issue raises an interesting problem for Chomsky’s view that nominative and agreement are tied together (while nominative and EPP are divorced) because it is not clear how nominative case is licensed in the absence of agreement. However, I develop an analysis for these psychological constructions in which there is a Tense requirement keeping the nominative in check. The fact that the experiencer is in nominative form also raises a problem for Landau’s (2003) proposal in which the default case of experiencers is dative and languages can have other forms of experiencers if they already have dative ones.

<sup>2</sup>Although example (3) can also be considered as a psychological construction, hereafter I use the term “Psych/psychological constructions” exclusively referring to psychological constructions with agreement restriction as in (4), corresponding to class III of B&R (1988).

with a *clitic pronoun* (-*emun*) attached to what is believed to be the non-verbal constituent of a compound verb. This co-referentiality does not exist in (3). Further examples of the psych constructions of interest are provided in (5).

- (5) a. (*mæn<sub>i</sub>*) *teshn-æm<sub>i</sub> ast-Ø*  
 I thirsty-1SG is-3SG  
 ‘I am thirsty.’
- b. (*unha<sub>i</sub>*) *xab-eshun<sub>i</sub> gereft-Ø*  
 they sleep-3PL took-3SG  
 ‘They got sleepy.’
- c. (*to<sub>i</sub>*) *særd-et<sub>i</sub> bud-Ø*  
 you cold-2SG was-3SG  
 ‘You were cold.’
- d. (*un-ha<sub>i</sub>*) *boht-eshun<sub>i</sub> zæd-Ø*  
 they wonder-3PL hit-3SG  
 ‘They got shocked/stunned.’

In the examples above, the preverbal DPs in the subject position—*mæn*, *unha*, *to*, and *unha* (I, they, you, they)—are optional and when present, do not induce agreement on the verbs *æst-Ø*, *geret-Ø*, *bud-Ø*, and *zæd-Ø* (is, took, was, hit). The verbs always appear in third person singular/default form, giving the impression that agreement is not required. Properties of these Psychological constructions are shown below.

## 2.1 Properties

**Property 1** The verb always appears with third person singular/default morphology.

**Property 2** Only a limited number of verbs participate in these psychological constructions: *gereftæn* ‘to take’, *amædæn* ‘to come’, *bordæn* ‘to take’, *shodæn* ‘to become’, *zædæn* ‘to hit’, *ræftæn* ‘to go’.

**Property 3** The verb is used in an unaccusative form even if it is transitive, i.e., *zæd* ‘hit’ and *bord* ‘took’ both really mean ‘occurred’. The fact that these verbs appear in unaccusative form implies that they only require a theme subject. If the construction contains another argument, such as a direct argument/source of the feeling, that argument appears as an adjunct. This is shown in (6) in which *pul* ‘money’ and *to* ‘you’ are optionally present in the structure as adjuncts.

- (6) a. (*shoma*) ***pul*** *lazem-etun mi-sh-e*  
 you.PL **money** necessary-2PL IND-become-3SG  
 ‘You (pl.) will need money.’
- b. (*shoma*) *lazem-e-tun mi-shævæd-Ø*  
 you.PL necessary-2PL IND-become-3SG  
 ‘You (pl.) will need (it/something).’
- c. (*mæn*) (***æz to***) *xosh-æm umæd-Ø*  
 from you liking-1SG came-3SG  
 ‘I am pleased with you’ / ‘I liked you.’ (you appealed to me)

- d. (mæn) *xosh-æm umæd-Ø*  
 I liking-1SG came-3SG  
 ‘I am pleased’ / ‘I liked (something/someone)’ / ‘(something) appealed to me.’

Examples (6b) and (6d) do not contain the source (*pul* and *to*) and the structure is grammatical. The same structure in (6a) and (6c) takes a source argument (*pul* and *to*) in the form of an adjunct. The structure of (6a) and (6c) in Persian differs from the corresponding English structure in which the second argument/direct object is obligatory.

**Property 4** Persian Psychological constructions always denote a non-agentive event. They are usually stative (as in (6a), *you need money*) or denote a change of state as in (7) and (8).

- (7) (mæn) *khab-æm gereft-Ø*  
 (I) sleep-1SG took-3SG  
 ‘I got sleepy.’
- (8) (unha) *teshne-shun shod-Ø*  
 they thirsty-3PL became-3SG  
 ‘They became/got thirsty.’

In (7)–(8) the event is not just a description of a state; rather, there is a situation in which a change of state from not being sleepy to feeling sleepy or from not being thirsty to becoming thirsty has occurred. However, it is evident that the constructions under investigation never denote an agentive event.

**Property 5** The sentence initial experiencer (*unha* in (8)) is obligatorily coreferential with a *clitic pronoun*, (*eshun*), attached to the psychological state (*teshne*). Even if the sentence initial experiencer is not overtly present in the structure, it is always encoded in the doubled clitic pronoun. This is shown in (9):

- (9) *teshne-shun shod-Ø*  
 thirsty-3PL became-3SG  
 ‘(They) became/got thirsty.’

**Property 6** The presence of the clitic pronoun in the Psych construction is obligatory. Unlike Spanish psych verbs, Persian psych constructions can never have a generic reference such as *las casas gustaron* (the houses pleased) in Spanish. The construction would lose its psychological meaning if used in infinitival form. For instance, example (10), without the genitive clitic and in infinitival form, can be used only for inanimate objects getting cold (*ghæza særd shod* ‘the food got cold’) in which the psychological situation is not conveyed.

- (10) *særd shod-æn*  
 cold became-INF  
 ‘to get cold’

In fact most psych examples cannot be used in infinitival form:

- (11) \**xab gereft-æn*  
 sleep took-INF  
 ‘to feel like sleeping’

This property of psych constructions is another indication against a compound-like nature that will be explored in the next section.

**Property 7** The experiencer appears with no case marker. Persian has no overt nominative marker; hence the general impression is that the experiencer is in an unmarked form, which is nominative. The experiencer has been identified as a *topicalized subject* (Yarmohammadi 1965), which appears in less formal contexts or situations.

**Property 8** The Psychological state may be expressed by a noun *xab* ‘sleep’ in (8) or an adjective *teshne* ‘thirsty’ in (7).

In previous literature, the psych constructions of interest have been considered as a VP compound unit consisting of a non-verbal element and a light verb. However, I propose that these Psych constructions involve a VP projection and are complete propositions, not a compound verb. I argue that the psychological state which has been argued to be the non-verbal constituent of the so-called compound is the theme argument of the unaccusative verb which moves to the subject position inducing agreement on the verb. Before laying out the analysis, I provide a summary of literature on Persian compound verbs in the next section.

### 3 Persian Compound Verbs

Compound verbs are extremely common in Persian and several studies have explored their properties (Barjasteh (1983), Dabir Moghaddam (1997), Folli *et al.* (2005), Ghomeshi and Massam (1994), Karimi (1997, 1999, 2005), Karimi-Doostan (1997, 2005), Megerdooomian (2001), Vahedi-Langrudi (1996), among others). A compound verb in Persian consists of a non-verbal element and a verbal element. The non-verbal element may be a noun, an adjective, a prepositional phrase, or a particle. This is shown in (12).

- (12) a. **Noun + Light Verb (LV):**  
*kotak zadan/xordan*  
beating hitting/colliding  
‘to beat/to get beaten’
- b. **Adjective + LV:**  
*pahn kardan/shodan*  
wide doing/becoming  
‘to spread, to widen’
- c. **Particle + LV:**  
*bala avardan*  
up bringing  
‘to vomit’
- d. **PP + V:**  
*be donya amadan*  
to world coming  
‘to be born’ (Karimi 2005:12)

The subject-verb agreement clitic of complex verbs in Persian always appears on the verbal element and never on the non-verbal part. This is shown in (13).

- (13) *mæn u ra [æz dæst dad-æm]*  
 I s/he ACC from hand gave-1SG  
 ‘I lost him/her.’

In (13) the verbal element of the compound verb *æz dæst dad-æm* which is *dad-æm* ‘gave-1SG’ is the host of the agreement with the subject *mæn* ‘I’.

Moreover, the object may be cliticized either on the non-verbal element of the compound (14a) or on the verbal element (14b).

- (14) a. *mæn u ra/o [æz dæst-esh dad-æm]*  
 I s/he ACC from hand-3SG gave-1SG  
 ‘I lost him/her.’  
 b. *mæn u ra [æz dæst dad-æm-esh]*  
 I s/he ACC from hand gave-1SG-3SG  
 ‘I lost him/her.’

Several studies have attempted to capture the syntactic and semantic properties of the non-verbal element and the light verb. Mohammad and Karimi (1992) argue that the light verb is semantically empty and the non-verbal element contributes to the argument structure of the verb. Vahedi-Langrudi (1996) argues that light verbs are bleached elements and do not correspond to particular thematic roles; moreover, the transitivity of the compound verb is determined by the non-verbal element. Karimi-Doostan (1997) argues that the light verb contributes aspectual information but not argument structure. Ghomeshi and Massam (1994) and Barjasteh (1983) consider the non-verbal element as an argument of the verbal element. Ghomeshi and Massam (1994) suggest that complex verbs in Persian are syntactically transparent and are formed in the syntax. Karimi-Doostan (1997) argues that both components of the compound verb contribute a thematic structure which undergoes a semantic fusion after incorporating at LF (logical form of Chomsky).

Traditionally, complex verbs in Persian have been considered a lexical unit since these compounds undergo nominalization and adjectival formation, bear a single stress, and cannot be separated by interveners such as PPs. However, some linguists have argued that compound verbs are visible to syntactic and morphological processes since the two components can be intervened by negation and inflectional affixes, auxiliaries, modals, and emphatic elements (Megerdoomian 2001, 2002, Mohammad and Karimi 1992). In addition, certain (but not all) non-verbal elements can be limitedly modified, gapped (Karimi 1997), or relativized. Based on Hale and Keyser’s (1993) approach and the non-lexicalist Distributed Morphology model, and following the previous proposals on compositionality of Persian compound verbs (Karimi-Doostan (1997), Vahedi-Langrudi 1996), Megerdoomian (2001) proposes that the non-verbal element and the light verb decompose to even smaller elements such as roots and functional elements. Folli *et al.* (2005) argue that Hale and Keyser’s (1993, 2002) model fits perfectly into Persian compound verbs (see examples therein). Folli *et al.* (2005) argue that the light verb in compound verbs may have an effect on (a) agentivity/causativity, (b) even-tiveness, and (c) duration. Accordingly, Karimi-Doostan (2005:15) argues that the light verb and the non-verbal element in Persian compound verbs are “separately generated and combined in syntax, and become semantically fused at a different level.” She argues that although the two parts of the compound may be syntactically intervened “limitedly”, they behave as a single unit semantically. The next section compares different properties of compound verbs and psychological constructions.

## 4 Compound Verbs vs. Psychological Constructions

As mentioned earlier, several studies have argued that the Psych constructions are compound verbs or at least resemble them. The first and foremost evidence for not considering the Psych constructions as compound verbs is the contrast of the subject agreement pattern between them shown in examples (3)–(4) repeated in (15)–(16). In (15) the subject agreement appears on the verbal element of the true compound verb *dust dastshtan*, while the experiencer in the Psych construction in (16) does not induce agreement on the verb and the verb always appears with third person singular/default morphology.

- (15) (*ma<sub>i</sub>*) *to ra/ro* [*dust dar-im<sub>i</sub>*]  
we you ACC friend have-1PL  
'We like you.' [We have you (as) a friend]
- (16) (*ma<sub>i</sub>*) *æz to* [*xosh-emun<sub>i</sub> umæd-Ø*]  
we from you pleasure-1PL came-3SG  
'We liked you.' [you appealed to us]

Previous literature (e.g. Ghomeshi (1996)) has reported two similarities between the Psych constructions and compounds: namely, that similar to compound verbs they **take one stress**, and **interveners cannot separate the so-called non-verbal element from the verbal component**. However, the validity of these arguments can be questioned in two ways. On the one hand, arguments for considering compounds as a lexical unit have been questioned by demonstrating that the two components of the compound verb may be relativized, gapped, and separated by a series of elements such as negation, inflectional affixes, auxiliaries, modals, and emphatic elements (Karimi 1997, Karimi-Doostan 1997, Vahedi-Langrudi 1996).<sup>3</sup> On the other hand, I provide examples showing that the Psych constructions may accommodate intervening elements and bear dual stress. This nullifies the arguments in favour of their compound-like nature. Consider example (17) in which the capitalized word shows the place of stress.

- (17) *'xosh-et mi-'yad?*  
pleasure-2SG IND-come  
'Do you like (it)?' / 'Are you pleased (with it)?'

In the interrogative form in (17), the existence of two stresses on the parts of the so-called compound is yet another factor for not considering the Psych constructions to be compound verbs. Also, the examples in (18a) and (18b) show the possibility of intervening elements between the two components of the so-called compound.

- (18) a. (*mæn<sub>i</sub>*) *del-æm<sub>i</sub> gereft-Ø*  
I heart-1SG got-3SG  
'I felt depressed.'
- b. (*mæn<sub>i</sub>*) *del-æm<sub>i</sub> (æz donya) gereft-Ø*  
I heart-1SG (from world) got-3SG  
'I felt depressed from the whole world.'

<sup>3</sup>See Megerdooian (2002) for a comprehensive list of compound verbs' dual syntactic and lexical characteristics.

In (18b) the prepositional phrase *æz donya* ‘from the world’ intervenes between the light verb and the supposedly non-verbal element of the compound. Examples (18a) and (18b) clearly show that the Psych constructions cannot be considered a lexical unit. Also, (19) may bear a rising intonation on the adverb *xeili* ‘a lot’ to show the focus.

- (19) (*mæn<sub>i</sub>*) *xosh-æm<sub>i</sub>*    **æz-æsh**    **XEILI** *na-y-amæd-Ø*  
 I        pleasure-1SG from-her/his a lot    NEG-y insertion-came-3SG  
 ‘S/he didn’t appeal to me MUCH’ / ‘I didn’t like him/her A LOT.’

In (19) two elements, a PP *æz-æsh* ‘from her/him’ and an adverb *xeili* ‘a lot’, intervene between the elements of the so-called compound. Example (20a) has a scrambled variant as in (20b) with a high rising intonation on *pænj shab-e* ‘it is five nights’.

- (20) a. *mæn<sub>i</sub>* [*pænj shab-e*] *khab-æm<sub>i</sub>* *næ-bord-Ø-e*  
 I        five    night-is sleep-1SG NEG-took-3SG  
 ‘It is/has been five nights that I have not fallen asleep.’  
 b. *mæn<sub>i</sub>* *khab-æm<sub>i</sub>* [*PÆNʃ SHAB-E*] *næ-bord-Ø-e*  
 I        sleep-1SG five        night-is    NEG-took-3SG-PTCP  
 ‘It is/has been five nights that I have not fallen asleep.’

In (20b) a complete clause *pænj shab-e* ‘it is five nights’ appears within the elements of the so-called compound verb. As an instance of scrambling, this complete clause can intervene between the theme and the light verb (with rising pitch on the theme). The fact that different elements can intervene between the constituents of the so-called compound in the sentences above clearly rules out the possibility of considering them lexical units or compound verbs.

#### 4.1 Lexical Properties

Another line of argumentation that demonstrates the differences between Psych constructions and compound verbs is the lexical properties of compound verbs. Several studies have explored the lexical properties of compound verbs. Below, I compare the lexical properties of compound verbs with those of Psych constructions. Dabir Moghaddam (1997) argues that Persian compound verbs undergo nominalization. Moreover, Megerdooian (2002) argues that compound verbs in Persian undergo nominalization and can form adjectives and adverbs, which suggests that they have to be treated as  $X^0$  units. Persian Psych constructions, on the other hand, do not undergo the above lexical processes. I compare examples of compound verbs from Megerdooian (2002:123) with the Psych construction below.

- (21) **Gerundive nominalization**  
*sigar    keshidæn-e in    bæche khatarnak ast*  
 cigarette pull-INF.EZ this kid    dangerous is  
 ‘This child’s smoking is dangerous.’

In (21) gerundive nominalization has occurred by adding the morpheme *æn* to the past stem of the complex predicate *sigar keshid* ‘to smoke’. Psych constructions, on the other hand, do not undergo gerundive formation.



- (22) \**særd-et shodæn-e to khatarnak ast*<sup>4</sup>  
 cold-(2SG) become-INF-EZ you dangerous is  
 intended meaning: ‘Your becoming cold is dangerous.’

(23) **Agentive noun formation**

*bazi kon-Ø-an/ændegan*  
 play do-Ø-PL

‘the players’

The compound verb *bazi kærðæn* ‘to play’ has formed an agentive noun by having *an/ændegan* added to the present stem of verbal component in (23). Agentive noun formation is not possible in the case of Psych verbs as in (24).

- (24) \**xoshk-æm zæn-Ø-an/ændegan*  
 dried-(1SG) take-Ø-PL  
 intended meaning: ‘while being stunned’

(25) **Adjectival noun formation**

*in kelid peyda shodan-i n-ist*  
 this key found become-ADJ.F NEG-is

‘This key is not to be found.’ [lit. ‘This key is not findable.’]

In (25) the compound verb *peyda shodan* ‘to find’ has undergone adjectival formation by having the suffix *-i* added to the present stem of the verbal component. The process of adjectival formation is not possible on a Psych verb as in (26).

- (26) \**in doxtær særd-esh shodæn-i n-ist*  
 this girl cold-3SG become-ADF.F NEG-is  
 ‘This girl is not to be/become cold.’

(27) **Participial adjective formation**

*lebas-hay-e khoshk shod-e*  
 clothes-PL-EZ dry become-PART.ADJ

‘(the) dried clothes’

In (27) the participial adjective form of the compound verb *khoshk shodæn* ‘to become dry’ is obtained by adding the particle *e* to the past stem of the verbal element of the compound. Such a process is not obtained with Psych constructions as in (28).

- (28) \**dokhtær-ha-ye særd-eshun shod.e*  
 girl-PL-of cold-3PL became.PART.ADJ  
 intended meaning: ‘the girls who have become cold’

<sup>4</sup>As mentioned previously, Psych constructions such as *særd-et shod-Ø* ‘you became cold’ can never be used in infinitival form since the presence of the clitic experiencer in the structure is obligatory; otherwise, the sentence would lose its psychological meaning.

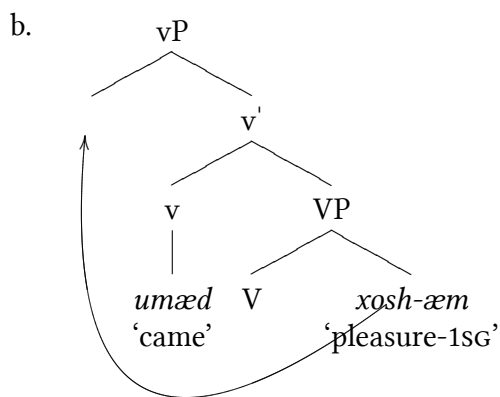
The above properties of complex predicates are not detected in the equivalent Psych constructions, which indicate that the two constructions contain rather distinct structures. Unlike previous studies that claim that Psych constructions contain a VP, I argue that they involve a VP with a theme subject. Unlike compound verbs, Psych constructions constitute a complete sentence and undergo meaning composition in a way that is predictable from syntax and semantics.

## 5 Proposal

Comparing properties of Persian psychological construction and compound verbs in the previous section demonstrated that they are distinct from one another. In section 2 it was argued that psychological constructions contain an unaccusative verb, an experiencer, and a psychological state with a clitic co-indexed with the experiencer, and the latter does not induce agreement on the verb. The intuitive idea that I propose is in the spirit of Dabir Moghaddam (1997), who considers the psychological state the subject of the sentence. Unlike previous literature, which considers psych constructions to be VPs, I argue that they contain a VP projection and are complete propositions.

I propose that the psychological state which has been argued to be the non-verbal constituent of the so-called compound *xosh-æm* ‘pleasure-1SG’ in (29) is the theme argument of the unaccusative verb, which moves to the subject position. This is shown in (29b).

- (29) a. *xosh-æm umæd-Ø*  
 pleasure-1SG came-3SG  
 ‘I liked (something/someone)/pleasure came to me (by someone/something).’



In (29) the verb is in unaccusative form. The theme *xosh-æm* ‘pleasure-1SG’ originates in the object position and moves to [spec vP] to satisfy the EPP/OCC/p requirement of the strong phase vP. By nature, the Psych state is in third person singular and induces third person singular agreement on the verb. Therefore, *the assumption made by previous studies, which argued that there is no verbal agreement in these constructions, is unfounded.*

I argue that the basic structure without the overt sentence initial experiencer (29) is a complete sentence in which the experiencer is obligatorily encoded as a clitic pronoun *æm* on the psychological state. Along the lines of Shibatani and Pardeshi (2001) and Heycock and Doron (2003), I propose that the experiencer is not the main argument of the verb; it takes a sentential predicate as its complement. In other words, it is an additional argument that is applied to a complete clause (in this case, *xosh-æm umæd*). In addition, I propose that there is a tense requirement on these constructions. This requirement is discussed in the next section.

## 5.1 The tense requirement

Exploring properties of psychological constructions in the previous section, it was argued that they cannot be nominalized and cannot be used in infinitival form without losing their psychological meaning. This means that although the structure of the clause in (29) is semantically complete, it does not predict that the configuration cannot appear in infinitives and contains the obligatory genitive clitic. There is a need for a structure to be obligatorily present above TP to ensure the existence of T.

I propose that Psych constructions contain a *Super High Applicative* projection that is always present above TP and which licenses the experiencer in its specifier.<sup>5</sup> In the absence of the optional experiencer in the sentence initial position as in (26), the *Super High Applicative* projection is still present and is filled with a phonologically null category with a [+*mental state*] feature. This category ensures that Psych constructions only apply to human or animate elements containing [+*mental state*] features. This condition is not unforeseen since Persian psych constructions cannot be used with inanimate agetns. This phonologically empty category is different from null categories of GB in the sense that it is encoded with the feature [+*mental state*] which does not have a phonological realization in Persian. Again, the reason for the tense requirement is the impossibility of utilising Psych constructions in infinitival form and nominalization; furthermore, adding a structure above TP is necessary to ensure that the tense requirement of Psych constructions is satisfied.

Recent studies on applicatives (Cuervo 2003, McGinnis 2001, Pylkkänen 2002) argue that a high applicative head can take only a vP or a DP as complement. Following Rivero (2004), who proposes a *Super High Applicative* head for reflexive clitics in south Slavic languages, I argue that Persian psychological constructions contain a *Super High Applicative* head that takes a TP as complement and hosts the experiencer. The SupHighApplP is a strong phrase, similar to CP and vP, is propositional, and assigns the thematic role of experiencer to the arguments generated in its specifier. This line of argument is along the lines of Heycock and Doron's *Broad Subjects* (2003) for Arabic and Hebrew and Shibatani and Pardeshi's (2001) analysis for dative subjects for South Asian languages. The main theme shared with the above analyses is the concept of applying an argument to a complete clause or a sentential predicate and recognizing/co-indexing it somewhere within the clause. The syntactic structure is presented in Figure 1.

In the structure in Figure 1, the theme subject *xosh-æm* 'pleasure-1SG' moves to [specvP], satisfies its EPP/OCC/*p* requirement, and values the  $\Phi$ -features, causing the unaccusative verb to appear with third person singular morphology. The sentence initial experiencer *mæn* is an extra argument applied to a thematically complete clause (*xoshæm amæd* 'my pleasure came/pleasure came to me'), which has a tense requirement. It is base generated/merged in [specSupHighApplP] and is licensed by the SupAppl null head. The fact that there is a tense requirement in the Psych construction explains why the experiencer surfaces in nominative form; tense would be responsible for licensing nominative. The sentence initial applied experiencer needs to be identified within the clause and that is why it

<sup>5</sup>The proposal of a tense requirement for Persian psychological constructions may be further expanded to a different construction in Persian which usually contains the modal *bayæd* 'must' and is impersonal in the sense that it cannot take an overt subject and does not refer to a specific person. An example is in (1):

- (1) *bayæd ræf-Ø*  
must went-3SG  
'(one) must go'

The impersonal construction in (1) does not have an overt subject. It contains a short form of the infinitive (without *-æn*) which is the bare past stem (*ræft* 'went'). These constructions are always tenseless and can never have a subject. This is further evidence for a link between the tense requirement and the possibility of an applied argument, in the sense that the lack of a tense requirement implies the lack of an external argument. I thank Jila Ghomeshi for this observation.

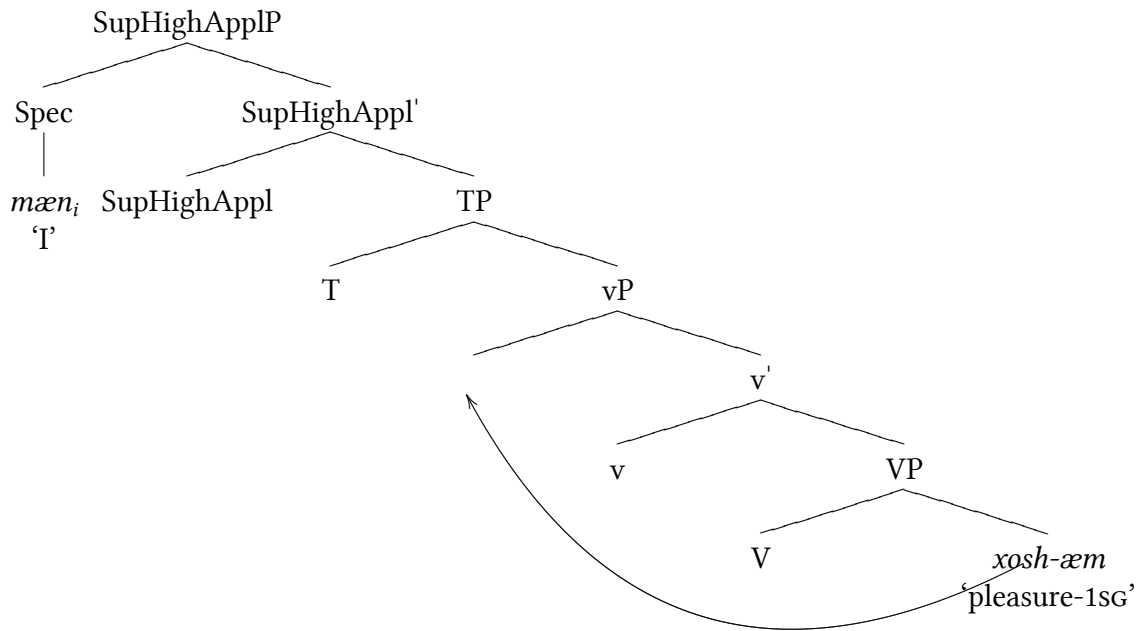


Figure 1: Proposed *Super High Applicative* head.

is co-referential with the clitic pronoun *æm* ‘1sg’ which is the possessor/affected argument of the theme ‘pleasure’; the two have an internal connection through the super high applicative phrase.

## 6 Summary

In this work I study certain Persian psychological constructions which have been argued to involve compound verbs. Unlike the previous analyses, I argue that they do not involve compound verbs. Rather, I argue that these constructions involve unaccusative verbs and that the theme subject induces agreement on the verb. I propose a tense requirement on psychological constructions which implies the existence of a structure above TP. I propose that Persian psychological constructions contain a *Super High Applicative* head that takes TP as a complement licensing the experiencer. This proposal for Persian psychological verbs has two implications for grammar theory: (a) the existence of a new category of applicative heads, *Super High Applicative*, located above TP, which is a strong phase; (b) the separation of nominative licensing and verbal agreement, implying that tense is responsible for nominative licensing.

## References

- Barjasteh, D. (1983). *Morphology, syntax, and semantics of Persian compound verbs: A lexicalist approach*. Ph.D. thesis, University of Illinois at Urbana-Champaign.
- Belletti, Adriana and Luigi Rizzi (1988). Psych-verbs and  $\theta$ -theory. *Natural Language and Linguistic Theory* 6: 291–352.
- Cuervo, M.C. (2003). *Datives at large*. Ph.D. thesis, MIT.
- Dabir Moghaddam, M. (1997). Compound verbs in Persian. *Studies in the Linguistic Sciences* 27(2): 25–59.
- Folli, Raffaella, Heidi Harley and Simin Karimi (2005). Determinants of event type in Persian complex predicates. *Lingua* 115(10): 1365–1401.
- Ghameshi, Jila (1996). *Projection and inflection: a study of Persian phrase structure*. Ph.D. thesis, University of Toronto, Toronto, ON.
- Ghameshi, Jila and Diane Massam (1994). Lexical/syntactic relations without projection. *Linguistic Analysis* 24: 175–217.
- Haerberli, Eric (2002). *Features, categories and the syntax of A-positions: Cross-linguistic variation in the Germanic languages*. Dordrecht: Kluwer.
- Hale, Kenneth and Samuel Keyser (1993). On argument structure and lexical expression of syntactic relations. In Kenneth Hale and Samuel Keyser (eds.), *The view from Building 20*, Cambridge, MA: MIT Press, pp. 53–109.
- Hale, Kenneth and Samuel Keyser (2002). *Prolegomenon to a theory of argument structure*. Cambridge, Mass: MIT Press.
- Heycock, Caroline and Edit Doron (2003). Categorical subjects. *Gengo Kenkyu* 123: 95–135.
- Karimi, Simin (1997). Persian complex verbs: Idiomatic or compositional? *Lexicology* 3(1): 273–318.
- Karimi, Simin (1999). Specificity effects: Evidence from Persian. *Linguistic Review* 16: 125–141.
- Karimi, Simin (2005). *A Minimalist approach to scrambling: Evidence from Persian*. Studies in Generative Grammar 76, Mouton de Gruyter.
- Karimi-Doostan, GH. R. (1997). *Light verb constructions in Persian*. Ph.D. thesis, University of Essex.
- Karimi-Doostan, GH. R. (2005). Light verb and structural case. *Lingua* 115(12): 1737–1756.
- Khanlari, Parviz Natel (1980). *Dastooore Zabane Farsi*. Tehran: Tous Press.
- Landau, Idan (2003). The locative syntax of experiencers. ms, Ben Gurion University.
- McGinnis, Martha (2001). Variation in the phase structure of applicatives. In J. Rooryck and P. Pica (eds.), *Linguistic Variations Yearbook*, Amsterdam: John Benjamins, vol. 1, pp. 105–146.
- Megerdooimian, Karine (2001). Event structure and complex predicates in Persian. *Canadian Journal of Linguistics/Revue canadienne de linguistique* 46(1/2): 97–125.
- Megerdooimian, Karine (2002). *Beyond words and phrases: A unified theory of predicate composition*. Ph.D. thesis, University of Southern California.
- Meshkat al-Dini, M. (1987). *An introduction to Persian transformational syntax*. Mashhad, Iran: Ferdowsi University Press.
- Mohammad, J. and Simin Karimi (1992). Light verbs are taken over: Complex verbs in Persian. In *Proceedings of WECOL*, vol. 5, pp. 195–212.
- Pesetsky, David and Esther Torrego (2001). T-to-C movement: causes and consequences. In Michael Kenstowicz (ed.), *Ken Hale: A life on language*, Cambridge, MA: MIT Press, pp. 355–425.

- Pesetsky, David and Esther Torrego (2004). Tense, case, and the nature of syntactic categories. In Jacqueline Guéron and Jacqueline Lacarme (eds.), *The syntax of time*, Cambridge, MA: MIT Press, pp. 495–538.
- Pesetsky, David and Esther Torrego (2007). The syntax of valuation and the interpretability of features. In S. Karimi, V. Samiian and W. Wilkins (eds.), *Phrasal and clausal architecture: Syntactic derivation and interpretation*, Amsterdam: John Benjamins, pp. 262–294.
- Pylkkänen, Liina (2000). What applicative heads apply to. *Proceedings of the 24th Annual Penn Linguistics Colloquium, UPenn Working Papers in Linguistics* 7(1).
- Pylkkänen, Liina (2002). *Introducing arguments*. Ph.D. thesis, Massachusetts Institute of Technology.
- Rivero, María Luisa (2004). Datives and the non-active voice: Reflexive clitic in Balkan languages. In Olga Mišeska Tomić (ed.), *Balkan syntax and semantics*, Series Linguistik Aktuell, Amsterdam: John Benjamins, pp. 237–267.
- Shibatani, Masayoshi and Prashant Pardeshi (2001). Dative subject constructions in south Asian languages. In *Yearbook of South Asian Languages and Linguistics*, New Delhi: Sage Publications.
- Svenonius, Peter (2001). Case and event structure. ms. University of Tromsø.
- Thackston, J.W. (1983). *An introduction to Persian*. Cambridge, MA: Harvard University.
- Vahedi-Langrudi, Mohammad Mehdi (1996). *The syntax, semantics, and argument structure of complex predicates in modern Farsi*. Ph.D. thesis, University of Ottawa.
- Yarmohammadi, Lotfollah (1965). *A contrastive study of modern English and modern Persian*. Ph.D. thesis, Indiana University.