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One morphology different syntax: The case of Persian psychological constructions

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Psych constructions are often characterized as datives involving an experiencer argument. I argue that despite striking morphological similarities, Persian psych constructions in fact fall into two main categories with different syntactic structures: one class involves a dative applicative, and the other a possessive structure. I propose that the possessive class is a different phenomenon than dative possessives attested in other languages. I argue that the affected interpretation of the possessor arises from the idiomatic nature of the possessive class, and not from its raising to a thematic position. I further posit that the external possessor in this class emerges through its raising to the CP domain, hence characterized differently from the possessor raising structures regarded as parallel to raising to subject. I take the oblique clitics, replacing the regular agreement, as possessive pronouns in the possessive class, and the realization of dative agreement, in the dative class. Additionally, the different compositional properties of these constructions are predicted based on the distinct thematic structures proposed here. This study provides a novel account for Persian psych constructions by taking them as two completely different phenomena. It further offers insights into the analysis of structures where surface morphological realizations obscure underlying syntactic machineries.

1 Introduction

Psychological constructions are typologically common across languages. These predicates express a mental, emotional or a psychological state and have been often shown to involve an experiencer dative argument across languages. Psych constructions are particularly interesting due to their idiosyncratic properties regarding case, φ-agreement and argument structure. These linguistic idiosyncrasies have motivated accounts arguing for a particular licensing mechanism and argument structure with these predicates (Belletti and Rizzi 1988; Marantz 1991; McGinnis 2000; Cuervo 2003; 2011; Béjar 2003; Lomashvili and Harley 2011; Fábregas and Marín 2015; Fábregas, et al. 2017; Jiménez-Fernández and Rozwadowska 2017; Citko et al. 2018; Jiménez-Fernández 2020; among others). Some authors have proposed that the dative argument of these predicates is merged in a special position, i.e., as an object/in a VP internal position (see Harris 1985 for Georgian, Beletti and Rizzi 1988 for Italian; Marantz 1991 and Lomashvili and Harley 2011 for Georgian). For some other authors these dative arguments are introduced in the specifier of special functional projections; e.g., the specifier of a non-thematic *v*P (see Béjar 2003 for Georgian) or the specifier of an applicative phrase (see Cuervo 2003; 2011 for Spanish; see also Fábregas et al. 2017; Jiménez-Fernández 2020). Under these proposals, the dative argument of a psych predicate receives a special argument licensing and is typically distinguished by its effect on case and agreement patterns.

In this study, I examine psych constructions in Persian. Persian follows a consistently accusative alignment. As such, it always shows obligatory subject agreement which is realized as verbal agreement suffixes, illustrated in (1). With psych constructions, however, we do not see the expected subject agreement pattern. In (2a) and (2b), the [1PL] oblique clitic, co-indexed with the sentence-initial DP, appears respectively on the nominal 'abashment' and 'heart'. Meanwhile the verb inflects as [3SG].[1]

(1) mā ali-ro[2] did-**im**.
we Ali-SPEC see.PST-1PL
'We saw Ali.'

[1] At surface, the pattern with psych constructions seems to be reminiscent of what has been characterized as ergative in many Iranian languages (see Jügel and Samvelian 2020 for a diachronic discussion in this regard). However, this pattern does not have a syntactic relevance to ergatives since it is also obtained in a consistently accusative language such as Persian, which is the focus of this paper. The morphological similarity of psych constructions to ergatives in Iranian languages is an interesting pattern, as psych predicates have been previously shown to be diverging in their case and agreement patterns from ergatives in other languages. In Georgian, for example, psych constructions trigger a special agreement pattern known as 'inverse agreement' distinguishing them from ergatives (see Harris 1981; Marantz 1991; Béjar 2003; Lomashvili and Harley 2011). In contrast to the Georgian pattern, the surface similarity of ergatives to psych constructions in Iranian languages leads to a condition where we see apparently identical patterns as the realization of two distinct syntactic structures.

[2] *-rā/-ro* (sometimes *-o*) is a Differential Object Marker (DOM) which appears on specific objects (Browning and E. Karimi 1994; S. Karimi 1996).

(2) a. mā ār = **emun** mi-yā-d.
we abashment = 1PL DUR.come.PRS-3SG
'We feel abashed.'

b. mā qalb = **emun** larz-id.
we heart = 1PL shudder.PST.3SG
'We got worried.'

Previous accounts on psych constructions in Persian have treated them as a unified phenomenon (Barjasteh 1983; Ghomeshi 1996; Dabir-Moghaddam 1997; Sedighi 2001; 2005; 2009; S. Karimi 2005; Haig 2008; Rasekh-Mahand 2010; Y. Karimi 2013; Kazeminejad 2014; Jügel and Samvelian 2020). It is worth noting that these constructions illustrate similarities to possessives in Persian. Similar to possessives, in psych constructions, an oblique clitic appears on a nominal. Due to this surface similarity to possessives, much previous work on Persian has taken them prevalently as instances of a possessive construction or as systems that obligatorily include a pronominal element. This is an assumption which I will show to be misguided for some of these predicates.

In this paper, I argue that despite striking morphological similarities, Persian psych constructions in fact fall into two main distinct categories with completely different syntax: one (exemplified in (2a)) involves a dative applicative structure that introduces a dative experiencer argument (in the spirit of Pylkkänen 2002; Cuervo 2003; 2011; McGinnis 2008; Fábregas et al. 2017; Jiménez-Fernández 2020) serving as the topic of the clause (along the lines of Fábregas et al. 2017; Jiménez-Fernández and Rozwadowska 2017; Kato and Ordóñez 2019; Jiménez-Fernández 2020). I posit that the other class (exemplified in (2b)), involves a simple genitive structure. At surface, the possessive class looks similar to the patterns of dative possessives and external possession attested previously in other languages (see Guéron 1985; 2006; Vergnaud and Zubizarreta 1992; Borer and Grodzinsky 1986; Landau 1999; Hole 2005; Lee-Schoenfeld 2006; Torres Morais and Lima-Salles 2016; Kato and Ordóñez 2019). However, I posit that this class illustrates a different phenomenon. I argue that what seems to be an external possessor in this class is in fact a topicalized possessor, raised out of a simple genitive construction into the CP domain, without occupying a new thematic position in the course of the derivation. As such, I posit that the external possessor in (2b) (i.e., the sentence-initial DP) is not associated to a thematic dative or applicative position, as has been proposed for dative possessives in some other languages (see for example Landau 1999; Cuervo 2003; Torres Morais and Lima-Salles 2016; Kato and Ordóñez 2019; Rodrigues 2023).

Building upon this proposal, the oblique clitics are also taken as the morphological realization of two distinct syntactic operations in the two classes. They are taken as possessive pronouns in the possessive class, and as the realization of dative agreement, in the dative class. The agreement anomalies of these constructions are thus captured by their special syntax. I further show that in

fact we are dealing with a non-canonical agreement system only in the dative class, where the dative experiencer bypasses [Spec,TP] in its movement to the CP domain, making it inaccessible for a regular nominative agreement. This leads to a default [3SG] agreement in this class. In the possessive class, by contrast, due to the inherently [3SG] nature of the possessive DP as the subject of the clause, a regular [3SG] agreement is obtained.

I further provide an account for the argument structure and compositional properties of these constructions. I argue that while the dative class forms a complex predicate selecting an experiencer argument, the possessive class is a combination of an unaccusative verb selecting a possessive internal argument. I show that the behaviour of each type of these constructions follows from its syntax.

The paper is organized as follows: In section 2, I describe the main patterns of interest. In light of cross-linguistic observations, I show that Persian psych constructions fall into two distinct types, each with a different thematic structure. Section 3 discusses the syntax and the compositional properties of these constructions. Building upon a number of diagnostics, I propose that these constructions are derived from two distinct syntactic structures. Section 4 examines the agreement patterns and the source of oblique clitics as well as the nature of the sentence-initial DP in both classes. Section 5 concludes the paper.

2 The puzzle

2.1 Basic agreement patterns

Persian follows an accusative alignment. The subject controls agreement which is realized as agreement suffixes on the verb (3).

(3) a. man har ruz ali-ro mi-bin-**am**.
I every day Ali-SPEC DUR-see.PRS-1SG
'I see Ali every day.'

b. mā ali-ro did-**im**.
we Ali-SPEC see.PST-1PL
'We saw Ali.'

Psychological constructions, decomposed into a non-verbal and a verbal element, show an anomalous agreement pattern.[3] With these constructions, specified in brackets (4–7), we do not

[3] I am intentionally using the term psychological "construction". As we will see, these constructions do not form a homogenous class. While some of them form just a predicate, some others consist of a predicate and a subject. Furthermore, note that while some of these constructions express a mental/emotional state or a psychological condition, some of them refer to a physical experience (e.g., 'to sneeze', 'to vomit', 'to weep', 'to feel hungry/thirsty/hot/cold', etc.). However, following the literature on Persian, I uniformly use the general term "psych(ological) constructions".

see the expected subject agreement suffixes. Instead, oblique clitics, that are co-indexed with the sentence-initial DP, obligatorily appear on the nominal component of these constructions and the verb obligatorily inflects as [3SG] (the asterisk indicates the obligatory presence of these clitics).

(4) mā tu in šahr [hāl*(=**emun**) mi-gir-e].
we in this city mood=1PL DUR-get.PRS-3SG
'We get upset in this city.'

(5) man [del*(=**am**) šekast].
I heart=1SG break.PST.3SG
'I felt heartbroken.'

(6) man [xoš*(=**am**) mi-yā-d] az=ašun.
I pleasure=1SG DUR-come.PRS-3SG from=3PL
'I like them.'

(7) to [xanda*(=**t**) gereft].
you laughter=2SG get.PST.3SG
'You burst into laughter.'

The pattern in (4–7) raises the question of why we do not observe the expected agreement suffixes with these predicates. These patterns further raise a question regarding the nature of the oblique clitics. In some previous accounts for Persian psych constructions, the similarity of these constructions to possessives (8) has been taken as the base for considering a possessive nature for all psych constructions, taking the oblique clitics as a possessor-related element. (8a) illustrates a regular genitive structure, where the possessor that is expressed as a full DP is linked to the possessum by a nominal linker (Ezafe)[4]. (8b) shows that the possessor, realized as a clitic pronoun within the possessive phrase, is doubled with a sentence-initial possessor serving as the topic of the clause, identical to the pattern obtained with psych constructions in (4–7). I will return to this discussion in the following section and argue that a possessive-based analysis for all these predicates faces problems (for different possessive-based analyses of these constructions see S. Karimi 2005; Haig 2008; Y. Karimi 2013; Kazeminejad 2014).[5]

[4] In many Iranian languages, nominal heads are linked to their modifiers or possessors by a linking element known as "Ezafe"; see S. Karimi and Brame (1986); Samiian (1994); Ghomeshi (1997); Samvelian (2007); Larson and Yamakido (2008); Kahnemuyipour (2014), among others.

[5] Y. Karimi (2013) takes these constructions as dative possessives. Under this account, the possessor that is merged as part of the nominal component raises to the Spec of a high ApplP, where it receives the experiencer role, while also being doubled by an oblique clitic. In the next subsection, we will see that the dative possessive analysis of these constructions faces some challenges.

(8) a. dust-e man umad.
friend-EZ 1SG come.PST.3SG
'My friend came.'

b. man dust=am umad.
I friend=1SG come.PST.3SG

Some other authors have not taken a possessive base for these constructions. For instance, Ghomeshi (1996) takes the clitics as pronominal elements encoding an experiencer argument. Under this account, the sentence-initial DP is taken as a topic that is base-generated in the Spec of a Topic Phrase. Barjasteh (1983) posits that the subject of these constructions is underlyingly accusative, and the clitics are the result of accusative subject cliticization via which the subject cliticizes to the non-verbal element. Sedighi (2001) takes these clitics as the realization of clitic left dislocation that are co-indexed with the sentence-initial DP, merged as an experiencer topic. Sedighi (2005; 2009) analyzes these clitics as pronominal elements obligatorily encoding the experiencer argument that is introduced as an applied argument by what she calls a "Super High Applicative" phrase. Under some historical accounts, the oblique clitics have been taken as agreement markers that have evolved from pronominal enclitics in the language (see Rasekh-Mahand 2010, Jügel and Samvelian 2020).

The previous analyses all offer valuable insights which contribute to a better understanding of psych constructions in Persian. However, there are issues in these analyses that need to be addressed. One issue that arises regarding the possessive analyses is that while some of these constructions seem to have a possessive base, the majority of them do not. Furthermore, under the majority of possessive-based accounts, obtaining a possessor-related interpretation in these constructions has remained unexplained. Finally, previous accounts have treated these psych constructions as a unified phenomenon, an assumption which I will show to be misguided (see also Samiian and Moradi 2023 for observations regarding some mixed properties of these structures particularly regarding the status of the sentence-initial DP).

2.2 Is Persian psych construction an instance of a possessive dative?

In languages with possessive datives, a possessor often carries an added meaning. Crucially, it has been shown that in some languages possessive datives can have a genitive alternation with a different thematic interpretation. In such languages, in the dative counterpart, the possessor is affected by the action denoted by the verb, and thus, receives a different thematic interpretation, compared to its genitive counterpart. For example, in the dative counterpart of the French example in (9a), the possessor is interpreted as a benefactive argument of the verb. By contrast, in the genitive counterpart (9b), the possessor does not convey any such added meaning besides being the possessor of the object. These possessive dative constructions have been attested in

several unrelated languages. The thematic interpretation of these constructions, however, is subject to variation both within and across languages. For example, in the Spanish possessive dative construction illustrated in (10a), no affected interpretation is involved compared to its genitive counterpart (10b). However, crucially, there is still a thematic difference between the two. In the dative counterpart, the object of admiration is *Valeria*, as opposed to the genitive counterpart in which the object of admiration is Valeria's patience.[6] Here too, in the dative construction there seems to be an added meaning (other than an affected interpretation) that is absent in the genitive counterpart.

(9) a. J'ai coupé les cheveux à Pierre.
I cut the hair to Pierre
'I cut Pierre's hair.' (Guéron 1985, cited in Landau 1999)

b. J'ai coupé les cheveux de Pierre
I cut the hair of Pierre
'I cut Pierre's hair.' (Adapted from Landau 1999: 3)

(10) a. Pablo le admira la paciencia a Valeria
Pablo CL.DAT admires the patience.ACC Valeria.DAT
'Pablo admires Valeria's patience' (Lit: 'Pablo admires Valeria the patience')

b. Pablo admira la paciencia de Valeria
Pablo admires the patience of Valeria
'Pablo admires Valeria's patience' (Cuervo: 2003: 74)

Under some previous accounts, possessive datives have been characterized as instances of external possession where the added meaning is encoded in a thematic position external to the possessive phrase. It has been proposed that the added meaning is obtained either via raising of the possessor to a new thematic position (Landau 1999; Lee-Schoenfeld 2006; Kato and Ordóñez 2019; Rodrigues 2023), or via a c-commanding/control relation established between an argument that is coreferential with a possessor (Guéron 1985; Borer and Grodzinsky 1986; Hole 2005; see Pylkkänen 2002 for further discussion on these viewpoints). For some other authors possessive datives are taken to be merged in the specifier of a thematic phrase—i.e., Applicative Phrase (Cuervo 2003; Torres Morais and Lima-Salles 2016).

In terms of word order and the placement of clitics, Persian psych constructions show striking similarities to dative possessive structures in Dominican Spanish (Kato and Ordóñez 2019). It has been proposed that the possessor ('these teams) in (11) is merged inside a possessive DP and raises to an external position where it receives dative case from a dative head and obtains an affected interpretation in that new position (see Kato and Ordóñez 2019 (following Landau

[6] There are other instances of dative possessives in Spanish that carry an affected interpretation (see Cuervo 2003 for discussion).

1999); see also Rodrigues 2023 for an analysis along similar lines for dative possessives in Brazilian Portuguese). The possessor ultimately raises to the left-periphery of the clause and is doubled by a clitic through clitic left dislocation.

(11) [$_{PossP}$ **a** **estos** **equipos**] [$_{TP}$ [$_{DatP}$ **t$_i$** **les** [$_{vP}$ faltó [$_{DP}$ suerte **t$_i$**]].
to these teams DAT.3PL lacked.3SG luck
'These teams lacked luck.'

All Persian psych constructions that we saw above carry an affected interpretation involving some sort of psychological (and in some places a physical) relation with the event denoted in the clause. At surface, this interpretation could be best captured by an experiencer role under which an individual undergoes a mental or psychological experience as a result of the event denoted by the predicate (for similar affected experiencer interpretations see Cuervo 2003; Bosse and Bruening 2011; Bosse et al. 2012; Jiménez-Fernández 2020). Given the similarity of psych constructions to possessives in Persian, and along the lines of some previous accounts for dative possessives across languages, one might posit that the sentence-initial DP in psych constructions is a possessor that is base-generated within a genitive structure and obtains the experiencer interpretation via raising to a new thematic position, while being doubled by a clitic in the merge position (along the lines of e.g., Landau 1999; Kato and Ordóñez 2019; Rodrigues 2023). Based on the cross-linguistic observation made above, if psych constructions have a possessive base, one of our expectations is that these constructions should have a regular genitive alternative form as well (see French and Spanish patterns in (9–10)). Crucially, this expectation is borne out *only* with a small subset of the psych constructions in Persian. Therefore, it would be problematic to assume a possessive base for all of these constructions. As shown below, in the genitive pattern (12b–14b), the possessor DP immediately follows the possessum and is linked to it by a nominal linker (aka Ezafe). This alternation leads to the absence of the clitic on the nominal. Note that the possessor cannot be expressed as a full DP possessor, simultaneously on the nominal element and in the clause-initial position (12c–14c).

(12) a. mā del = emun gereft.
we heart = 1PL get.PST.3SG
'We felt bored.'

b. del-e mā gereft.
heart-EZ 1PL get.PST.3SG

c. *mā del-e mā gereft.
I heart-EZ 1PL get.PST.3SG

(13) a. man hāl = am mi-gir-e tu in šahr.
I mood = 1SG DUR-get.PRS-3SG in this city
'I get upset in this city.'

b. hāl-e man mi-gir-e tu in šahr.
mood-EZ 1SG DUR-get.PRS-3SG in this city

c. *man hāl-e man mi-gir-e tu in šahr.
I mood-EZ 1SG DUR-get.PRS-3SG in this city

(14) a. man del = am suxt barā = šun.
I heart = 1SG burn.PST.3SG for = 3PL
'I felt sympathetic for them.'

b. del-e man suxt barā = šun.
heart-EZ 1SG burn.PST.3SG for = 3PL
'I felt sympathetic for them.'

c. *man del-e man suxt barā-šun.
I heart-EZ 1SG burn.PST.3SG for = 3PL
'I felt sympathetic for them.'

The question that we need to address is whether this possessive subset of psych constructions could be analyzed as an instance of a possessive dative structure found across languages (see Y. Karimi 2013 for the dative possessive analysis of psych constructions in Persian). In what follows, I will argue that these psych constructions are not instances of possessive datives.

As discussed above, across languages, there is always a thematic difference between dative possessives and their simple genitive structures. Crucially, in Persian, the genitive counterparts (12b–14b) convey the same interpretation as that of their clitic-bearing counterparts co-occurring with a sentence-initial DP (12a–14a). In other words, the genitive alternation, in which the possessor remains within the possessive phrase, is not correlated with the absence of an affected interpretation for the possessor, or any added meaning beyond affectedness which was shown to be the case in a language like French and Spanish. As such, the presence of a sentence-initial possessor in the (a) counterparts could not be correlated with the assignment of a new theta-role to the external possessor.

Furthermore, a part-whole relation, often formed through an inalienable possession relation is a common property of possessive datives across languages (reported in Cuervo 2003; Boneh and Nash 2013; Torres Morais and Lima-Salles 2016; Jiménez Fernández 2020; Rodrigues 2023).[7] Considering this typological observation, it is important to note that the part-whole relation between the possessum DP and its possessor in Persian examples does not necessarily express an affected interpretation for the possessor. In (15), we see that the part-whole relation is found in what seems to be just a run-of-the-mill possessive structure, with the topicalized possessor

[7] Under some accounts, possessive datives have received a low Applicative analysis (see Cuervo 2003 and subsequent authors). Under such accounts, a low Appl head relates the dative possessor to the object.

lacking any affected interpretation (15c). Crucially, the part-whole relation in such possessive constructions involves no psychological import. As a result, the possessor does not obtain an affected/experiencer meaning, yet the same structure persists.[8] In other words, (15) expresses nothing beyond its literal meaning: 'my leg got cramped'. By contrast, the possessive psych constructions discussed earlier express some form of emotional or psychological experience. Thus, they convey an affected interpretation for the possessor. For instance, the event of 'one's heart being broken' suggests that the possessor of 'heart' is emotionally affected by feeling heartbroken.

(15) a. pāy-e man gereft.
leg-EZ 1SG get.PST.3SG
'My leg got cramped.'

b. pā=m gereft.
leg=1SG get.PST.3SG

c. man pā=m gereft.
I leg=1SG get.PST.3SG

d. *man pāy-e man gereft.
I leg-EZ 1SG get.PST.3SG

Additionally, some possessive psych constructions in Persian do not even contain the typical body-part possession relation. As observed in the examples given above, the possessum DP can be a nominal such as mood, etc. Finally, it should be noted that the external possessor structure is also found in genitive constructions that do not even involve a part-whole relation between the possessor and the possessum.[9] I will return to this discussion in section 4.2 and argue that the possessive-type psych constructions are derived from a simple genitive structure. The sentence-initial DP in these possessive constructions is taken as an external possessor moving to the CP domain, hence serving as the topic of the clause.

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[8] When the possessum DP is pluralized (i.e., 'legs'), the verb can optionally inflect as [3PL], tracking the possessum DP as the subject.

(i) man pāh-ā=m gereft(-**an**).
I leg-PL=1SG get.PST-3PL
'I, my legs got cramped.'

[9] The following examples, partially repeated from section 2.1, illustrate:

(i) a. dust-e man umad.
friend-EZ 1SG come.PST.3SG
'My friend came.'

b. dust=am umad.
friend=1SG come.PST.3SG

c. man dust=am umad.
I friend=1SG come.PST.3SG

In light of these observations, I posit that the possessive class of psych constructions is formed through a regular genitive construction and does not involve a dative structure. I further propose that the affected interpretation is not obtained structurally (as is the case with possessive datives in some languages), rather, it is derived from the combination of particular lexical items that are involved in this class, giving an idiomatic flavor to these constructions (e.g., the breaking of one's heart 'feeling heartbroken', burning of one's heart 'feeling sympathetic', one's mood being ruined 'feeling upset', etc.). In other words, the combination of the lexical items in possessive psych constructions conveys a psychological experience leading to their characterization as a psych construction. Meanwhile, such psychological imports cannot be involved when the combination of lexical items in an expression lacks a reference to a psychological, mental or an emotional experience, even under a similar part-whole inalienable possession relation (e.g., 'my leg got cramped').

As idiomatic expressions, these psych constructions are expected to disallow the manipulation of their components. As expected, crucially, unlike regular possessive phrases, the pluralization of the nominal element in possessive psych constructions leads to an infelicitous result (16b), as opposed to (16a) which has a singular nominal.[10] I will return to the discussion on this class of constructions in the following sections and propose a detailed account for their syntax.

(16) a. unā del=ešun šekast.
they heart=3PL break.PST.3SG
'They felt heart-broken.'

b. #unā del-**ā**=šun šekast.
they heart-PL=3PL break.PST.3SG
'intended: They felt heart-broken.'

Above we saw that a subset of psych constructions allows a genitive alternation. Crucially, unlike what we observed above in (12–14), we see that another class of psych constructions, shown in (17–19), does not allow a genitive alternation. In this class, the sentence-initial DP carries an experiencer role under which an individual undergoes an emotional or psychological experience.[11]

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[10] An anonymous reviewer raised the point that in the case of body parts of which humans have only one (e.g., nose, heart, belly), the body part is always singular with a necessarily distributed reading: *#Mary and Peter scratched their noses at the same time*. While I agree with the point that the singular nominal is favored over its plural counterpart in such cases, the plural form does not seem to be a completely infelicitous option. By contrast, crucially, the pluralization of the nominal in psych constructions makes them semantically odd.

[11] It is worth pointing out that some of the predicates in this class indicate a physical experience, such as 'to sob'(ia), 'to sneeze' (ib), etc. However, following the literature on Iranian languages, I uniformly use the general term 'psych(ological) constructions' for this class.

(i) a. man heqheq=am gereft.
I sobbing=1SG get.PST.3SG
'I sobbed.'

I take the failure of the genitive alternation test to indicate that this class—henceforth the experiencer class— is not derived from a possessive base. Therefore, the clitics could not be taken as possessor pronouns in this class. The distinction between the two classes raises an immediate question regarding the source of these clitics in this new class of psych constructions. I will return to this question in section 4 and provide an account for the clitics in the experiencer class.

(17) a. mā az in film xoš=emun mi-yā-d.
we from this movie pleasure=1PL DUR-come.PRS-3SG
'We like this movie.'

b. *az in film xoš-e mā mi-yā-d.
from this movie pleasure-EZ 1PL DUR-come.PRS-3SG

(18) a. mā xanda=mun gereft.
we laughter=1PL get.PST.3SG
'We burst into laughter.'

b. *xande-ye mā gereft.
laughter-EZ 1PL get.PST.3SG

(19) a. unā hasudi=šun mi-š-e be mā.
they envy=3PL DUR-become.PRS-3SG to we
'They envy us.'

b. *hasudi-ye unā mi-š-e be mā.
envy-EZ 3PL DUR-become.PRS-3SG to we

In this section, I showed that Persian psych constructions fall into two main categories. The ones that passed the genitive alternation test were argued to involve a simple possessive base. The ones that did not pass the genitive alternation test were categorized as the experiencer type, lacking a possessive structure. In the next section, we look at these constructions more closely and examine their syntactic derivations.

3 Towards a new analysis of psych constructions in Persian

In this section, we examine the syntactic derivation of the two types of psych constructions with a special focus on their compositional properties. Prior work on Persian psychological constructions has characterized the syntax of these constructions differently. Under some accounts, these constructions have been uniformly analyzed as complex predicates (see Barjasteh

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b. man atsa=m gereft.
I sneeze=1SG get.PST.3SG
'I sneezed.'

1983; Ghomeshi 1996; S. Karimi 2005; Rasekh-Mahand 2010; Y. Karimi 2013; Kazeminejad 2014). Some other authors (Dabir-Moghaddam 1997; Sedighi 2005; 2009) have taken them uniformly as a combination of a simplex unaccusative verb and an internal argument. In what follows, I discuss the syntax of these constructions. I propose that in terms of their compositional properties, psych constructions do not form a homogenous class either. In particular, we will be looking at some tests distinguishing complex predicates from the combination of an unaccusative verb selecting a theme argument. Given the general tendency of complex predicates for having a non-referential bare nominal as their non-verbal element, we predict that only the experiencer class, which disallows a possessor on their nominals, can form a complex predicate. Aligned with our prediction, we will see that the type of psych constructions correlates with their syntactic structures. I posit that the experiencer class involves a complex predicate. These are the ones that do not allow the presence of a possessor on their nominal, as predicted. By contrast, the possessive class is formed through the combination of an unaccusative verb and a possessive internal argument. Due to the simplex nature of the predicate in this subset, the presence of the possessor on the nominal is predicted.

3.1 Distinguishing complex and simplex predicates

Complex predicates in Persian are formed by a non-verbal element (e.g., noun, adjective, PP) and a light verb. This is a common compositional property of complex predicates among Iranian languages (see Vahedi-Langrudi 1996; S. Karimi 1997; Karimi-Doostan 1997; Megerdoomian 2002; 2012; Folli et al. 2005; Gündoğdu 2015). One of the properties of complex predicates is their resistance against syntactic operations like the displacement of their components. This type of resistance could be attributed to the incorporated nature of the components of these predicates.[12]

One case of displacement occurs in cleft structures. As shown in the following examples, a regular complex predicate (20a) does not allow the clefting of its non-verbal element (20b). By contrast, the combination of an unaccusative verb and an internal argument (21a) allows a cleft structure (21b) via which the internal argument of an unaccusative verb undergoes clefting.

(20) a. kabutar-ā parvāz kard-an.
pigeon-PL flight do.PST-3PL
'The pigeons flew.'

b. *in parvāz bud ke kabutar-ā kard-an.
this flight was that pigeon-PL do.PST-3PL
'It was a flight that pigeons did.'

[12] In this regard, S. Karimi (1997), proposes an incorporation process at LF via which the noun and light verb combine and form a single predicate.

(21) a. sag-e mord.
dog-DEF die.PST.3SG
'The dog died.'

b. in sag-e bud ke mord.
this dog-DEF was that die.PST.3SG
'It was the dog that died.'

Furthermore, complex predicates do not typically allow the stranding of their non-verbal element. In (22), we see that the non-verbal element of the complex predicate *raqs kardan* 'to dance' cannot be stranded. This stands in contrast with the behaviour of an unaccusative simplex predicate selecting an internal argument. In (23), we see that the internal argument of an unaccusative verb allows stranding.

(22) *kabutar-ā parvāz kard-an, na raqs.
pigeon-PL flight do.PST-3PL not dance
'Intended: The pigeons flew. They did not dance.'

(23) sag-e mord, na gorbe-he
dog-DEF die.PST.3SG not cat-DEF
'The dog died, not the cat.'

Finally, adverbials, even the ones known as low or *v*P-internal adverbials such as manner adverbs, often cannot intervene between the components of the complex predicate (the (b) counterparts of (24–25); the predicate is specified in brackets and the adverb is highlighted) (see Sedighi 2009). Following much of the literature on complex predicate constructions across languages (Megerdoomian 2002; 2012; Folli et al. 2005; Lomashvili 2010; Folli and Harley 2013; Lyutikova and Tatevosov 2013; Gündoğdu 2015; 2019), I take complex predicates as *v*P projections. I further take low adverbials as adjunction to *v*P (**Figure 1**).[13] As such, the resistance of the components of a complex predicate against the separation by a manner adverb could be attributed to the adverb's adjunction position, which typically occupies a higher structural position than where the predicate is formed.[14]

[13] Low adverbials like manner adverbs have been taken in other structural positions. For example, for Cinque (1999; 2002), manner adverbs are introduced in the specifier of a functional projection distinct from verb phrase (see also Kahnemuyipour 2004 for a viewpoint along these lines). Whether low adverbials are introduced as adjunction within *v*P or as specifiers of functional projections other than *v*P has no bearing on the current discussion. The point here is that the manner adverb is introduced in a position higher than the position where the components of the predicate are introduced. As such, the intervention between the components by the adverbial is not allowed.

[14] Providing a detailed proposal for complex predicate constructions is beyond the scope of this study. However, it is worth briefly highlighting some points regarding the structure presented in **Figure 1**. The proposed structure resembles that of a head-complement relation, a configuration that has been suggested in previous analyses of complex predicates in Persian (see, e.g., Folli et al. 2005; Karimi-Doostan 2005). Furthermore, the non-referential status of the nominal element is represented by an NP structure, highlighting its contrast with referential nouns

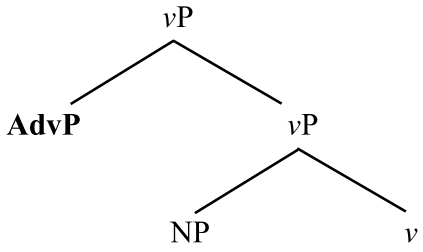

Figure 1: Manner adverbs.

(24) a. **zud** [zang zad-am] be maryam.
quickly call hit.PST-1SG to Maryam
'I quickly called Maryam.'

b. *[zang **zud** zad-am] be maryam.
call quickly hit.PST-1SG to Maryam

(25) a. **boland** [sohbat kard-im].
loudly speaking do.PST-1PL
'We talked loudly.'

b. *[sohbat **boland** kard-im].
speaking loudly do.PST-1PL

Unlike the observation above regarding complex predicates, a manner adverb can intervene between a simplex predicate and its theme argument. This pattern could be the result of the internal argument raising from the *v*P internal position to [Spec,TP].[15] This movement leads

that are often represented by a DP structure. The non-referentiality of the nominal component has been captured in similar ways under other accounts as well. For instance, Folli et al. (2005) treat the entire nominal component as an N. In other analyses (e.g., Megerdoomian 2001; 2002; 2012), the non-verbal element is merged as a root, which is the sister of a category-determining head. Additionally, regarding the types of light verbs in Persian complex predicate constructions, it has been shown that the light verb alternation correlates with the alternation of the argument structure, and thus, such accounts have specified flavors for the *v* head (v_{DO}, v_{CAUS}, v_{BECOM}). This correlation, however, has been most notably observed in causative-inchoative alternations, where the choice of a light verb correlates with the agentivity of the predicate (see e.g., Megerdoomian 2002; 2012; Folli et al. 2005; Karimi-Doostan 2005; for the specification of the *v* type in complex predicate constructions in other languages see Folli and Harley 2013; Lyutikova and Tatevosov 2013; Gündoğdu 2015; 2019). Nonetheless, a broader range of data suggests that the formation of specific predicate types (e.g., agentive (DO) versus non-agentive (BECOM/BE) event types) is not necessarily tied to the use of a particular light verb. Instead, it has been argued that the event type alternation is a result of the combination of the predicate's components at a higher structural level (for an extended discussion on this topic see Taghipour 2024; see also Samvelian and Faghiri 2014 for similar observations). As such, I have deliberately refrained from specifying the flavor of the *v* head in the proposed structure and abstracted away from providing further details in this regard.

[15] This movement could be attributed to the EPP requirement in the language. Under some proposals, the [EPP] feature is taken to be combined with a discourse-related feature leading to the DP movement to [Spec,TP] (see Jiménez-Fernández 2024). I abstract away from providing any such details that motivate the EPP movement here and suffice to point out that the internal argument raises to [Spec,TP] to satisfy EPP, while deriving the surface word order.

to the placement of the adverb between the simplex unaccusative verb and its complement (the subject).

(26) nāme-he **zud** res-id.
letter-DEF quickly arrive-PST.3SG
'The letter arrived quickly.'

(27) ādam-hā-ye ziyād-i **mazlumāne** mord-and tu-ye in jang.
human-PL-EZ many-INDEF innocently die.PST-3PL at-EZ this war
'Many people died innocently in this war.'

3.2 Compositional properties of psych constructions

In light of these observations, let us now have a look at the behaviour of psych constructions with respect to these tests. The application of these tests to the two types of psych constructions, identified above, reveals a contrast between them. As shown below in (28–30), the possessive class allows the cleft structure. In the (a) counterparts, we see the possessive psych construction as the base structure. In the (b) counterparts, we see that the non-verbal element is clefted. Note that the bare nominal cannot be clefted on its own, without the presence of the possessor following it. As a result of this restriction, the possessor has to obligatorily appear following the non-verbal element. This restriction is indeed another indication of the possessive base for this class of constructions.

(28) a. hāl = am/[hāl-e man] mi-gir-e.
mood = 1SG/mood-EZ 1SG DUR-get.PRS-3SG
'I get upset.'

b. in hāl-e man = e ke mi-gir-e.
this mood-EZ 1SG = is that DUR-get.PRS-3SG
'It is my mood that is ruined.'

(29) a. del = am/[del-e man] mi-suz-e.
heart = 1SG/heart-EZ 1SG DUR-burn.PRS-3SG
'I feel sympathetic.'

b. in del-e man = e ke mi-suz-e.
this heart-EZ 1SG = is that DUR-burn.PRS-3SG
'It is my heart that burns.'

(30) a. del = am/[del-e man] mi-škan-e.
heart = 1SG/heart-EZ 1SG DUR-break.PRS-3SG
'I feel heartbroken.'

b. in del-e man=e ke mi-škan-e.
this heart-EZ 1SG=is that DUR-break.PRS-3SG
'It is my heart that breaks.'

It is worth pointing out that in cleft structures (the (b) counterparts), we seem to need the full pronoun only. Therefore, the placement of a clitic on the non-verbal element yields an ungrammatical result (or at best a marginally acceptable result; compare the clitic bearing counterpart (30b) with (31)). The ungrammaticality/markedness of (31) could receive an independent explanation. It seems that where clefting involves a possessive structure, with a contrastive focus on the possessor, which is the case in (28–30), a full possessor DP is always favored to its pronominal counterpart. In (32), we see a regular possessive/genitive construction involving clefting. Here, likewise, the full DP possessor is favored over its clitic pronominal form. This restriction could be due to the fact that cleft structures are often associated with an inherent contrastive/focused interpretation (Kiss 1998; Drubig 2003 and references therein). As such, they generally require a full form of a pronoun so that a contrast is highlighted.[16]

(31) ?in del=**am**=e ke mi-škan-e.
this heart=1SG=is that DUR-break.PRS-3SG
'It is my heart that breaks.'

(32) a. in dust-e man bud ke umad.
this friend-EZ 1SG was that come.PST.3SG
'It was my friend who came.'

b. ?in dust=**am** bud ke umad.
this friend=1SG was that come.PST.3SG
'It was my friend who came.'

Note that the cleft structures presented above sound even more natural under ellipsis where the non-verbal element is stranded with the possessor DP following it (33). This pattern again clearly suggests that firstly, these constructions have a possessive base, and secondly, they do not form a complex predicate, given that the non-verbal element can be stranded after ellipsis (while carrying a possessor). These two properties (i.e., stranding of the non-verbal element and its modification by a possessor) cannot be extended to complex predicates.

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[16] In regular genitive structures where the focus can be on the whole argument, we can have a clitic possessor pronoun on the argument under clefting (i).

(i) in dust=am bud ke umad (na xāhar=am).
this friend=POSS.1SG was that come.PST.3SG not sister=POSS.1SG
'It was my friend who came, not my sister.'

(33) a. in hāl-e man=e ke mi-gir-e, na hāl-e to.
this mood-EZ 1SG=is that DUR-get.PRS-3SG not mood-EZ 2SG
'It is my mood that is ruined, not yours.'

b. in del-e man=e ke mi-suz-e, na del-e to.
this heart-EZ 1SG=is that DUR-burn.PRS-3SG not heart-EZ 2SG
'It is my heart that burns, not yours.'

c. in del-e man=e ke mi-škan-e, na del-e to.
this heart-EZ 1SG=is that DUR-break.PRS-3SG not heart-EZ 2SG
'It is my heart that breaks, not yours.'

Above, we observed that the application of clefting and ellipsis yields grammatical results for the possessive class, providing an argument against a complex predicate source for these constructions. With these observations in mind, let us now have a look at the behavior of the experiencer class regarding clefting and ellipsis. As shown in (34–36), the predicates in the experiencer class do not allow clefting (i.e. (b) counterparts). They do not allow ellipsis either ((c) and (d) counterparts; (c) counterparts involve both clefting and ellipsis and (d) counterparts involve only ellipsis with the stranded non-verbal element). Note that since this class does not allow a full DP on its nominal (see section 2.2), we only see the clitic-bearing form.

(34) a. hasudi=šun mi-š-e.
envy=3PL DUR-become.PRS-3SG
'They envy.'

b. *in hasudi=šun=e ke mi-š-e.
this envy=3PL=is that DUR-become.PRS-3SG

c. *in hasudi=šun=e ke mi-š-e, na hasudi=m.
this envy=3PL=is that DUR-become.PRS-3SG not envy=1SG

d. *hasudi=šun mi-š-e, na hasudi=m.
envy=3PL DUR-become.PRS-3SG not envy=1SG

(35) a. heyf=am mi-yā-d.
pity=1SG DUR-come.PRS-3SG
'I feel pity.'

b. *in heyf=am=e ke mi-yā-d.
this pity=1SG=is that DUR-come.PRS-3SG

c. *in heyf=am=e ke mi-yā-d, na heyf=et
this alack=1SG=is that DUR-come.PRS-3SG not alack=2SG

d. *heyf=am mi-yā-d, na heyf=et.
pity=1SG DUR-come.PRS-3SG not alack=2SG

(36) a. xanda = m gereft.
laughter = 1SG get.PST.3SG
'I burst into laughter.'

b. *in xanda = m bud ke gereft.
this laughter = 1SG was that get.PST.3SG

c. *in xanda = m bud ke gereft, na xanda = t
this laughter = 1SG was that get.PST.3SG not laughter = 2SG

d. *xanda = m gereft, na xanda = t.
laughter = 1SG get.PST.3SG not laugh = 2SG

Finally, if psych constructions form a complex predicate, similar to regular complex predicates, they are expected to resist the separation of their components by an adverbial. By contrast, if they are formed through the combination of an unaccusative verb and a theme argument, they should allow the separation by an adverbial. As we see below, the possessive class (37) allows the separation of its components by an adverb, while the experiencer class (38) resists it. Note that for establishing the contrasts more clearly, I am applying this test on the same constructions examined above. As such, while the constructions in (37) allow a regular genitive alternation, the ones in (38) do not.

(37) a. man haminke axbār-ro šen-id-am, [hāl = am **xeyli** gereft].
I once news = SPEC hear-PST-1SG mood = 1SG much get.PST.3SG
'Once I heard the news, I got really upset.'

b. man [del = am **xeyli** mi-suz-e] barā = šun.
I heart = 1SG much DUR-burn.PRS-3SG for = 3PL
'I feel really sympathetic for them.'

c. to [del = et **zud** mi-škan-e].
you heart = 2SG quickly DUR-break.PRS-3SG
'You feel heartbroken quickly.'

(38) a. man. (**xeyli**) [heyf = am (***xeyli**) mi-yā-d] in-ro
I much pity = 1SG much DUR-come.PRS-3SG this-SPEC
na-xar-am.
NEG-buy.PRS-1SG
'I really feel pity if I don't buy it.'

b. man (**zud**) [xanda = m (***zud**) mi-gir-e] az jok-ā = t.
I quickly laughter = 1SG quickly DUR-get.PRS-3SG from joke-PL = 2SG
'I quickly burst into laughter at your jokes.'

c. unā (**xeyli**) [hasudi = šun **(*xeyli)** šod] be šahāmat-e mā.
they much envy = 3PL much become.PST.3SG to courage-EZ we
'They really envied our courage.'

Based on the diagnostic tests provided in this section, we saw that the predicates in the experiencer class form a complex predicate, while the ones in the possessive class are formed through the combination of a simplex unaccusative verb and a possessive internal argument. Crucially, the lack of a possessive base for the experiencer class correlates with their complex predicate nature since the nominal element of a complex predicate typically needs to be bare and non-referential, and thus, does not allow modification by a possessive pronoun.[17] By contrast, in the possessive class, formed by a simplex verb selecting an internal argument, the nominal element is not involved in the formation of a complex predicate. Therefore, as expected, the nominal element can be stranded, while hosting a possessor as a type of nominal modification (either as a strong pronoun or an oblique pronominal clitic).

Finally, a question may arise regarding the unaccusative nature of the constructions in the possessive class. In what follows, I will apply two diagnostic tests showing that we are dealing with unaccusative predicates. The use of agent-oriented adverbs (Roeper 1987; Pylkkänen 1999) as well as control constructions could provide two suitable test cases in this regard. Agent-oriented adverbs modify agentive predicates and control constructions often require an agentive predicate in the embedded clause. As such, unaccusative predicates are predicted to be infelicitous in these contexts.[18] (39) illustrates the infelicitous use of agent-oriented adverbs as well as control constructions with the predicates in (37a) (predicates in this class consistently exhibit the same restriction). The embedded CP in the control construction is specified in brackets. Compare (39) with (40) illustrating the felicitous use of an agentive-oriented adverb and a control construction with an agentive predicate (i.e., unergative *dance*).

(39) a. #man haminke axbār-ro šen-id-am, [**amdan** hāl = am
I once news = SPEC hear-PST-1SG intentionally mood = 1SG
gereft].
get.PST.3SG
'Once I heard the news, I intentionally got upset.'

[17] See Megerdoomian (2012) for some other forms of modification permitted under certain conditions and only with a small subset of complex predicates.

[18] There seem to be some exceptions in these predictions. For instance, the verb 'arrive', typically classified as an unaccusative predicate, can still be felicitous as the predicate in the embedded clause of a control construction. What matters for the current discussion is that agentive predicates are consistently felicitous in agent-denoting contexts, unlike most unaccusative/inchoative predicates, which tend to be infelicitous in such contexts. The similar distribution of agentive and some non-agentive predicates could arise from agent-like properties of some of these apparently non-agentive predicates. This is an interesting question for future research.

b. #man qowl dād-am [ke hāl = am be-gir-e].
I promise give.PST-1SG that mood = 1SG SUBJT-get.PRS-3SG
'I promised to get upset.'

(40) a. man **amdan** ziyād raqs-id-am.
I intentionally much dance-PST-1SG
'I intentionally danced a lot.'

b. man qowl dād-am [ke to jašn-e arusi be-raqs-am].
I promise give.PST-1SG that at party-EZ wedding SUBJT-dance.PRS-1SG
'I promised to dance at the wedding party.'

The diagnostic tests presented above showed that the possessive constructions are infelicitous in agent-denoting contexts, providing evidence for their unaccusative nature. Overall, based on the discussion in this section, we can conclude that despite the striking surface similarities of psych constructions, they are in fact of two distinct types diverging from each other in two main aspects: their thematic nature and their compositionality. In the following section, I address the syntactic derivation of these constructions more closely and provide an account for the nature of the sentence-initial DP in the two classes as well as their agreement patterns. We will see that their agreement does not follow the same system either.

4 Agreement patterns: Dative agreement clitics versus possessor pronoun clitics

We saw that psych constructions consistently trigger [3SG] inflection on the verb, irrespective of the φ-properties of the sentence-initial DP in both classes. This is in contrast with the accusative agreement pattern of the language under which the subject is obligatorily tracked by a verbal agreement suffix. In this section, I will provide an account for this agreement anomaly.

4.1 Experiencer class

In the previous section, I argued that the psych predicates in the experiencer class form a complex predicate. I take the dative argument in this class as an affected argument that is involved in some psychological or emotional (or physical) experience, as a result of the event denoted by the predicate (Cuervo 2003; Bosse and Bruening 2011; Bosse et al. 2012; Jiménez-Fernández 2020). I further take the derivation of this class to involve an applicative phrase, where the experiencer is merged in the specifier of a high Applicative Phrase (along the lines of Pylkkänen 2002; Cuervo 2003; 2011; McGinnis 2008; Fábregas et al. 2017; Jiménez-Fernández 2020). As such, the structure of these predicates differs from the regular complex predicates in that these predicates obligatorily involve an ApplP on top of their *v*P, as part of their structure. This additional functional projection derives the dative semantics of these predicates (**Figure 2**).

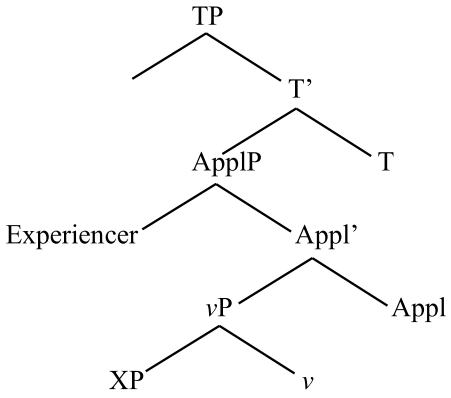

Figure 2: Dative experiencer constructions: an applicative structure.

I take the Appl head a φ-probe and the oblique clitics in this type of constructions as the result of a Spec-Head agreement between the Appl head and its specifier upon merge (**Figure 3**), taken as an instance of 'inherent agreement' (Wiltschko 2006; Coon 2017; Forbes 2018; Coon et al. 2021). This agreement is realized as oblique clitics occupying the second position within the verb phrase. This distributional behavior of clitics is reminiscent of the distribution of ergative agreement clitics in some Iranian languages (see Haig 2008; Y. Karimi 2010; 2017; Akkuş et al. 2024; Taghipour 2024 for different Kurdish dialects; see Moghaddam 2016 for Davani (Northwestern Iranian)). As such, these clitics obligatorily appear on the nominal component of the predicate that is the first element within the verb phrase.[19]

[19] A small subset of the experiencer psych predicates forms a bivalent unaccusative which shows up as Subject + Object structures, but do not project an external argument (i). (i) disallows the genitive counterpart (ib), indicating that it belongs to the experiencer class. I take the object of such constructions to be merged in the Spec of the verb phrase that generates the complex predicate, along the lines of some previous accounts for the argument structure of complex predicates (Megerdoomian 2002; 2012).

(i) a. man in esm-ā-ro yād=am raft.
I this name-PL-SPEC memory=1SG go.PST.3SG
'I don't remember these names.'

b. *in esm-ā-ro yād-e man raft.
this name-PL-SPEC memory-EZ 1SG go.PST.3SG

Another small subset of the experiencer dative constructions involves a copular structure (iia). Similar to the larger dative experiencer class that are formed through a complex predicate construction, this subset does not allow the genitive alternation (iib). I take the verbal domain of these constructions to involve a copular structure instead. I abstract away from a detailed analysis of this subtype.

(ii) a. maryma sard=eš=e.
Maryam cold=3SG=is
'Maryam is (feeling) cold.'

b. *sard-e maryam-e
cold-EZ Maryam-is

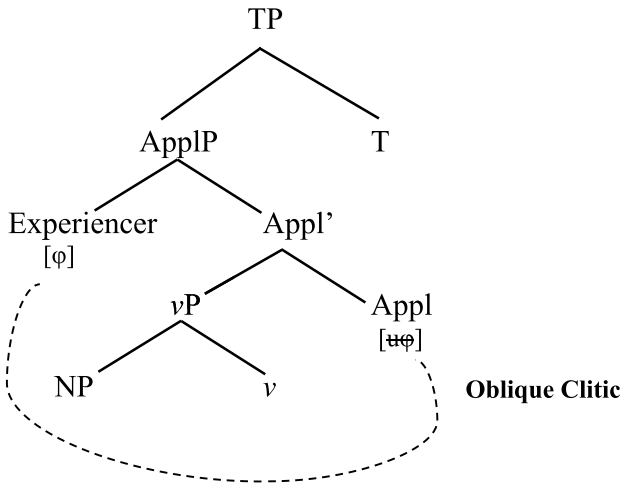

Figure 3: Dative agreement.

The current analysis of these oblique clitics as agreement markers raises the question of why these markers are not taken as clitic doubling on par with object clitic doubling found in the language. As shown in (41), the object ('you') is doubled by a pronominal clitic on the verb.

(41) man to-ro mi-bin-am(=et).
I you-SPEC DUR-see.PRS-1SG=2SG
'I see you.'

Importantly, while the doubling of the object is a consistently optional process, the presence of clitics in the experiencer psych constructions is obligatory (see Samvelian and Tseng 2010 for a discussion on object clitic doubling in Persian; for the optionality of clitic doubling or constraints on its occurrence in other languages see Dobrovie-Sorin 1990; Alexiadou and Anagnostopoulou 2000; Anagnostopoulou 2003; Yuan 2020). It is worth pointing out that the agreement analysis of the clitics in the experiencer class is along the lines of earlier accounts in the literature on ergative subject clitics in Iranian languages analyzing them as agreement elements (Roberts 2000; 2001; Moghaddam 2016; Akkuş et al. 2024; Taghipour 2024).[20]

We are still left with a question regarding the precise nature of the sentence-initial DP in this class of predicates. Datives have been shown to move to the left-periphery of the clause, serving as the topic in some instances (for this discussion in the context of Romance languages see Fábregas et al. 2017; Jiménez-Fernández and Rozwadowska 2017; Kato and Ordóñez 2019; Jiménez-Fernández 2020; Rodrigues 2023). If dative experiencers in Persian move into the TP domain, they are expected to exhibit subject properties, and hence could be taken as subjects.

[20] See also Roberge and Troberg (2009) for an agreement analysis of clitic pronouns that express dative non-core arguments in Romance languages.

In Persian, one of the key properties of subject DPs is their ability to control agreement (see Bošković 2016 for taking the lack of regular agreement morphology with wh-subjects as an indication of their movement to [Spec,CP], bypassing [Spec,TP]; see also Kato and Ordóñez 2019 for a similar effect). We have already seen that the experiencer DP does not control subject agreement in Persian dative psych constructions. Below, I argue that such DPs are in fact topicalized elements moving into the CP domain, while bypassing [Spec,TP]. This analysis is extended also to the possessive class (see section 4.2).

The epistemic modal *tavānestan* 'can' has been taken as a raising predicate in Persian (Béjar and Kahnemuyipour 2023).[21] In (42), the DP in the matrix clause ('students') triggers agreement on the modal, indicating the raising of the DP to a subject position—a canonical property of subjects in Persian.[22]

(42) dānešju-hā$_i$ mi-tun-**an** [**t**$_i$ az in dānešgāh šekāyat kon-an].
student-PL DUR-can-3PL from this university complain do.PRS-3PL
'Students can complain about this university.'

Crucially, the sentence-initial DP in dative psych constructions does not trigger agreement on the modal (43–44). The contrast with (42) indicates that the dative experiencer could not have moved to a subject position, otherwise the agreement should have been controlled by the experiencer DP (see Boeckx 2000; Tubino 2009; Jiménez-Fernández and Rozwadowska 2017 for using *seem/appear* type of raising constructions as a diagnostic test for subject properties of datives).[23]

(43) *man mi-tun-**am** be unā hasudi=m be-š-e.
I DUR-can-1SG to them envy=1SG SUBJ-become.PRS-3SG
'Intended: I can envy them.'

(44) man mi-tun-**e** be unā hasudi=m be-š-e.
I DUR-can-3SG to them envy=1SG SUBJ-become.PRS-3SG
'I can envy them.'

Additionally, in clauses formed by the progressive auxiliary *dāštan* 'have', agreement is triggered both on the main verb and on the auxiliary (45).[24] Crucially, in clauses formed by dative psych

[21] Béjar and Kahnemuyipour (2023) support their proposal by providing several pieces of evidence including the availability of overt subjects, temporal modification, idiomatic readings, quantifier floating, among others (see Béjar and Kahnemuyipour 2023 for discussion on this topic).

[22] Unlike the known raising structures found in a language like English, in Persian raising structures that are formed by the epistemic modal *tavānestan*, we see agreement also in the subordinate clause. This indicates that despite having a non-finite temporal property, the subordinate clause is not a defective agreement domain.

[23] The predicates such as *seem* and *appear* do not exhibit typical raising properties in Persian (see S. Karimi 2005). Therefore, they were intentionally excluded from the current discussion.

[24] I do not aim to provide an account for the agreement that is triggered both on the auxiliary and the main verb in such constructions. One could ask whether the auxiliary and the main verb reside in the same clause or in two different clauses. This is an interesting question which I leave for future research.

predicates (46), while we see the expected oblique clitics tracking the dative experiencer, the progressive auxiliary consistently shows the [3SG] inflection, indicating that the sentence-initial experiencer is not occupying subject position (i.e., [Spec,TP]).

(45) bačče-hā dār-**an** mi-raqs-**an**.
kid-PL have.PRS-3PL DUR-dance.PRS-3PL
'The kids are dancing.'

(46) a. *man dār-**am** be unā hasudi=m mi-š-e.
I have.PRS-1SG to them envy=1SG DUR-become.PRS-3SG
'Intended: I am envying them.'

b. man dār-**e** be unā hasudi=m mi-š-e.
I have.PRS-3SG to them envy=1SG DUR-become.PRS-3SG
'I am envying them.'

In light of these observations, I propose that the experiencer DP in the dative experiencer class moves to the CP domain and serves as the topic of the clause.[25] I further take the [3SG] verbal agreement in the experiencer dative constructions as the default realization of the φ-features on T, which have not been valued in syntax. I assume that an unvalued feature in a well-formed derivation can survive LF (along the lines of Béjar 2003; Preminger 2011; 2014; Kornfilt and Preminger 2015; Levin 2015). As such, the presence of unvalued φ-features on T does not induce an ungrammatical result (see Y. Karimi 2010; 2017; Parker 2020; Taghipour and Kahnemuyipour 2021; Taghipour 2024 for a similar viewpoint about the [3SG] inflection of the verb in the ergative alignment of some Iranian languages).[26]

I will close this section by a brief discussion on the resistance of the dative experiencer predicates against nominalization. In section 3, it was argued that the predicates in the dative experiencer class form a complex predicate since their behaviour in a number of diagnostics (clefting, ellipsis and adverbial placement) conforms to the behaviour of regular complex predicates. This pattern stands in contrast with the behaviour of the possessive class showing diverging properties in these respects. The predicates in the dative experiencer class, however, illustrate an important distinction compared to regular complex predicates: unlike regular complex predicates, these types of predicates resist nominalization. Before proceeding any further, let us have a look at the patterns of nominalization in Persian.

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[25] It is important to note that Persian is a topic-prominent language (S. Karimi 2005), which naturally results in a topic interpretation of subjects. Therefore, I excluded discourse-related diagnostics, such as out-of-the-blue questions, as tests for the topichood of dative DPs (for the application of this test in the context of dative experiencers, see Jiménez-Fernández and Rozwadowska 2017 and references therein).

[26] Under the current proposal, the experiencer datives are characterized as constructions lacking a subject in their [Spec,TP]. One could assume a covert expletive (pro_{expl}) in the [Spec,TP] of these constructions satisfying the EPP (see Kato and Ordóñez 2019).

In Persian, nominalization (also known as *masdar*) is formed by attaching the nominalizing suffix *-an* to the past verbal stem (47). In (48), we see the nominalization of regular complex predicates by the attachment of the nominalizer suffix to the light verb.

(47) a. xor-d-**an**
eat-PST-N
'eating'

b. raft-**an**
go.PST-N
'going'

(48) a. parvāz kard-**an**
flight do.PST-N
'flying'

b. jiq keš-id-**an**
scream pull-PST-N
'screaming'

In contrast to regular complex predicates, in (49) we see that the dative experiencer predicates, categorized as complex predicates, do not allow nominalization. The failure of nominalization with this class of predicates raises a question regarding the complex predicate nature of such predicates (see Sedighi 2009).

(49) a. *heyf umad-**an**
alack come.PST-N
'feeling pity.'

b. *xande gereft-**an**
laughter get.PST-N
'bursting into laughter'

c. *hasudi šod-**an**
envy come.PST-N
'envying'

It has been proposed that *v*P is the structural height of nominalization in Persian (Kahnemuyipour 2022). Non-specific objects (50a) and manner adverbs (50b) have been shown to be within this domain, as opposed to specific objects (in non-generic contexts) (50c) and speaker-oriented adverbs (50d) that are excluded from nominalization (see Kahnemuyipour 2022 for further discussion on this topic).[27]

[27] Specific objects have been taken to be *v*P-external (Browning and E. Karimi 1994; Ghomeshi 1996; S. Karimi 1996; Megerdoomian 2002; Kahnemuyipour 2009; 2022). Therefore, as expected, they are excluded from the nominalization

(50) a. **qazā** xor-d-an alān mi-tun-e vaqtgir be-š-e.
food eat-PST-N now DUR-can-3SG time-taking SUBJ-become.PRS-3SG
'Eating food now can be time-taking.'

b. **bā ajale** qazā xor-d-an be salāmati=t āsib mi-zan-e.
with rush food eat-PST-N to health=2SG damage DUR-hurt-PRS-3SG
'Eating food hastily hurts you.'

c. *__qazā-ro__ xor-d-an
food-SPEC eat-PST-N
'This eating the food'

d. *__xošbaxtāne__ qazā xor-d-an
fortunately food eat-PST-N
'fortunately eating food'

As noted earlier, *v*P is a level that includes also both components of the complex predicate. In other words, a regular complex predicate is formed as a predicate within this domain. Crucially, the situation differs with dative experiencer psych predicates. These predicates involve an applicative phrase (ApplP) above *v*P in their derivation, a structural property that sets them apart from regular complex predicates in the language. I propose that nominalization fails to produce a grammatical result with the experiencer dative psych predicates because the predicate is not fully formed when nominalization occurs (cf. Y. Karimi 2013). In other words, this failure arises due to the presence of an ApplP above *v*P, leaving the predicate incomplete at the *v*P level. As such, I do not take the failure of nominalization as a point against a non-complex predicate source of these constructions. Furthermore, other tests presented in section 3 provided support for taking the dative constructions as complex predicates. In the next section, I will provide my proposal regarding the agreement patterns in the possessive psych constructions.

4.2 Possessive class

In section 2, it was argued that the possessive psych constructions, exemplified in (51a), could not be taken as an instance of dative possessives attested in other languages. Rather, I posited that this class of psych constructions is no different from a regular genitive structure in Persian. On par with regular possessive structures, I propose that the external possessor in this subclass is introduced within the possessive phrase and raises to the CP domain, serving as the topic of the clause. This movement further leads to clitic left dislocation in the base position within the possessive phrase which is reminiscent of the pattern found in the external possessor constructions in Romance languages (see e.g., Kato and Ordóñez 2019), schematized in (52). As such, in the presence of the external possessor in the sentence-initial position, the full DP possessor on the

domain which is taken to be as large as *v*P. Additionally, the exclusion of high speaker-oriented adverbs is attributed to their *v*P external merge position (see Kahnemuyipour 2022 for discussion on these patterns).

possessum is predicted to be ill-formed ((51b) versus (51c)). Furthermore, in contexts where the possessor raising does not occur, the possessor can optionally be realized either as a full DP, or in its pronominal clitic form following the possessum (51d).

(51) a. man del=am mi-suz-e.
I heart=1SG DUR-burn.PRS-3SG
'I feel sympathetic.'

b. del-e man mi-suz-e.
heart-EZ 1SG DUR-burn.PRS-3SG

c. *man del-e man mi-suz-e.
I heart-EZ 1SG DUR-burn.PRS-3SG

d. del=am/del-e man mi-suz-e.
heart=1SG/heart-EZ 1SG DUR-burn.PRS-3SG

(52) [CP [$\mathbf{DP}_{\mathbf{Possessor}}$]$_{\mathbf{i}}$ [TP [*v*P [$DP_{Possessum}$ **(= CL)** $\mathbf{t}_{\mathbf{i}}$]]]]

The lack of subject agreement with the external possessor could indicate that the possessor's landing site lies outside the TP domain.[28] The same agreement obtains in regular possessive constructions that contain a topicalized possessor. In (53), the [3PL] agreement tracks the possessum DP, rather than the topicalized external possessor.

(53) man dust-ā=m umad-**an**.
I friend-PL=1SG come.PST-3PL
'I, my friends came.'

Additionally, the [3SG] agreement obtained in constructions formed by the epistemic modal *tavānestan*, taken as a raising predicate (54) and the progressive auxiliary *dāštan* (55) provides further support for taking the external possessor in the CP domain, bypassing [Spec,TP]. In section 4.1, we saw that subjects always control agreement in these contexts (also see section 4.1 for the application of these tests on the experiencer dative class).

(54) a. man mi-tun-**e** del=am barā=š be-suz-e.
I DUR-can.PRS-3SG heart=1SG for=3SG SUBJ-burn.PRS-3SG
'I can feel sympathetic for him.'

b. *man mi-tun-**am** del=am barā=š be-suz-e.
I DUR-can.PRS-1SG heart=1SG for=3SG SUBJ-burn.PRS-3SG
'I can feel sympathetic for him/her.'

[28] A subset of possessor raising constructions in Brazilian Portuguese shows an interesting contrast with the Persian pattern. It has been observed that in Brazilian Portuguese, external possessors, serving as the topic in the clause, can appear in nominative form and trigger regular subject agreement morphology, hence taken as topic subjects that move to the TP domain (for discussion on possessor raising constructions in Brazilian Portuguese see Kato and Ordóñez 2019 and Rodrigues 2023 and references therein).

(55) a. man dār-**e** del = am barā = š mi-suz-e.
I have.PRS-3SG heart = 1SG for = 3SG DUR-burn.PRS-3SG
'I am feeling/about to feel sympathetic for him/her.'

b. *man dār-**am** del = am barā = š mi-suz-e.
I have.PRS-1SG heart = 1SG for = 3SG DUR-burn.PRS-3SG
'I am feeling/about to feel sympathetic for him/her.'

It is worth pointing out that taking the possessor to raise to a position above TP aligns with the account proposed by Kato and Ordóñez (2019) for external possessors in Dominican Spanish. However, Persian possessor raising presents a notable contrast. In Dominican Spanish, the possessor is argued to first move to a dative thematic position, acquiring an affected interpretation, before raising to a topic position above TP (see Kato and Ordóñez 2019 for further discussion; see also section 2.2). As mentioned in section 2, the external possessor in psych constructions and regular possessives in Persian is not associated to an affected interpretation or any added meaning. As such, in the current analysis, I do not consider the landing of the possessor in an intermediate thematic position. Rather, I take the possessor directly raise to the CP domain. Additionally, I analyze the whole possessive phrase as the subject of the clause. In Section 3.1, we observed that in cases of *v*P ellipsis involving nominal negation, the entire possessive phrase is stranded. Below, we further see that the whole possessive phrase, consisting of the possessor, also survives the *too* (*ham*) replacement targeting the *v*P (56). This indicates that similar to regular subject DPs, the whole possessive phrase is outside of the *v*P domain.

(56) del-e man šekast, **del-e** **to** ham.
heart-EZ 1SG break.PST.3SG heart-EZ you also
'Lit. My heart broke. Your heart too.'

The behaviour of the possessive psych constructions in nominalization provides further support for taking the whole possessive phrase as the subject of the clause. If the whole possessive phrase is the subject of the clause, similar to a regular subject of an unaccusative verb (57), the whole possessive phrase (consisting of the possessum and the possessor), should be excluded from nominalization. As we see in (58), this prediction is borne out. This indicates that the whole possessive phrase is the subject of the unaccusative verb, and thus similar to the pattern in (57), this DP cannot be part of a nominalized structure.[29] Finally, due to the [3SG] property of the possessum DP, these clauses always show [3SG] agreement (cf. Sedighi 2005; 2009). **Figure 4** illustrates the structure of possessive-type constructions (dotted line indicates agreement).

[29] As indicated earlier, *v*P has been taken as the height of nominalization. In unaccusatives, the absence of a locus for accusative case licensing prevents the internal argument from receiving case within that domain. Therefore, I interpret the ungrammaticality in (57–58) as stemming from the caseless status of the internal argument (the subject).

(57) a. *nāme resid-an
letter arrive.PST-N
'intended: arrival of the letter'

b. *došman šekast xor-d-an
enemy defeat collide-PST-N
'intended: defeating of the enemy'

(58) a. *del-e man šekast-an
heart-EZ 1SG break.PST-N
'intended: breaking of my heart'

b. *del=am šekast-an
heart=1SG break.PST-N
'intended: breaking of my heart'

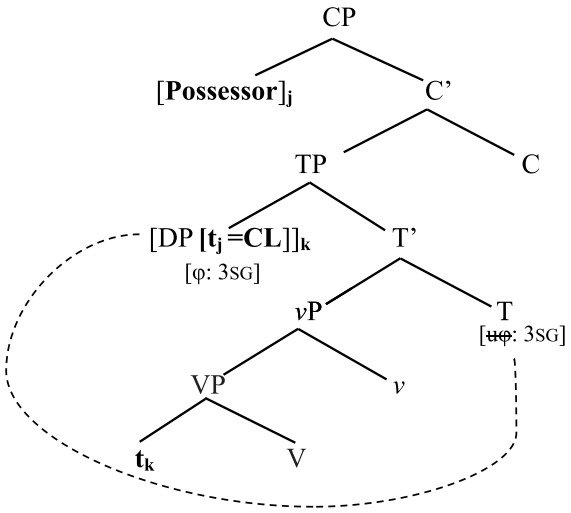

Figure 4: Possessive psych constructions.

In light of the observations made in this section, I further conclude that the Persian external possessor examined above cannot be analyzed similar to previously reported patterns of external possession, where the possessor raises to an athematic A-position, as reported in Nez Perce and Tagalog (see Deal 2013; Nie 2019). Firstly, it has been proposed that in such instances, the possessor raising is a case-driven movement, and thus, it is always obligatory. Crucially, possessor raising in Persian is not an obligatory operation. Secondly, by examining various constructions in this section, I showed that the possessor could not have raised to a subject/argument position. Rather, I argued that the landing site of the external possessor is the CP domain. Thus, it was taken as an instance of A-bar movement.

In this section, I examined the argument structure and the agreement patterns of psych constructions. I provided an account for their differences at thematic and syntactic levels. Overall, the facts examined in this paper showed that how two seemingly identical constructions can be derived from distinct underlying systems.

5 Conclusion

This study provided a novel analysis for psych constructions in Persian. I argued that despite being characterized as a unified phenomenon in previous accounts, these constructions are in fact of two main distinct types: experiencer datives and simple possessives. I proposed that in the experiencer dative class, the experiencer argument is merged in the specifier of a high applicative phrase (along the lines of Pylkkänen 2002; Cuervo 2003; 2011; McGinnis 2008; Fábregas et al. 2017; Jiménez-Fernández 2020), obtaining the experiencer interpretation upon merge. I further argued that the sentence-initial DP in this class moves to the CP domain and serves as the topic of the clause. Regarding the possessive class, based on a number of structural properties, I proposed that they are formed through a regular genitive construction. I further posited that the affected interpretation of the possessor is the result of the idiomaticity of this class, rather than the raising of the possessor to a new thematic position. As such, I argued against taking the possessive psych constructions as dative possessives attested in other languages (Guéron 1985; 2006; Borer and Grodzinsky 1986; Landau 1999; Lee-Schoenfeld 2006; Torres Morais and Lima-Salles 2016; Kato and Ordóñez 2019). Additionally, the external possessor in this class was taken to be the result of possessor raising to the CP domain. I further argued against taking the external possessor as a result of the raising of the possessor to an athematic argument position, attested in other languages (see Deal 2013; Nie 2019).

The oblique clitics replacing the agreement suffixes were taken as the realization of a dative agreement probed by the Appl head in the experiencer dative class, and as a pronoun, resulted from clitic left dislocation, in the possessive class. I argued that what seems to be an agreement anomaly is in fact the case only in the dative experiencer class, where the experiencer dative skips the TP domain, and thus, is inaccessible for agreement.

Additionally, these two classes of psych constructions were shown to be derived from two syntactic structures. I argued that the experiencer dative class involves a complex predicate structure, while the possessive class involves the combination of a simplex unaccusative verb selecting an internal argument. It was further argued that the syntactic derivation of these constructions correlates with the nature of the constructions—i.e., the unavailability of a possessor on the nominal in the dative experiencer class. Importantly, this compositional property aligns with the preference for the bare and non-referential status of the non-verbal element in a complex predicate construction, disallowing the modification of the non-verbal element by a possessor.

The applicative phrase was argued to merge only in a subset of psych constructions, labeled as experiencer datives. As a result, the applicative analysis was restricted only to the experiencer dative class. We saw that the presence of the Appl head as a dative case licenser is sensitive to the lexical choice of the predicate and its presence cannot be predicted based on independent structural properties. This provides support for taking dative licensing in Persian as a lexically-sensitive phenomenon, compared to other cases such as nominative that is assigned independently from the lexical choice of the predicate. In this regard, the nominalization patterns showed that unlike regular complex predicates, the dative experiencer predicates cannot undergo nominalization. I posited that this failure is attributed to the presence of an ApplP above the *v*P projection in these predicates, rendering them thematically incomplete at the *v*P layer, which is the height of nominalization.

The classifications proposed in this study contribute to our cross-linguistic understanding of psych constructions. It highlights that despite being characterized uniformly as datives in various languages, psych constructions may deviate from typical dative constructions, leading to this conclusion that psych constructions can manifest entirely differently within a single language and across languages. The surface similarities in Persian psych constructions led to the formation of intriguing constructions where morphological forms obscure underlying syntactic structures. Such constructions underscore the complexities that morphological realizations could cause for the syntactic analysis of specific phenomena, necessitating a close examination of structures that may seem identical at surface.

Abbreviations

1 = first person, 2 = second person, 3 = third person, ACC = accusative, CL = clitic, DAT = dative, DEF = definite, DUR = durative, EZ = Ezafe, INDEF = indefinite, N = nominalizer, NEG = negative, PL = plural, POSS = possessive, PRS = present, PST = past, SG = singular, SPEC = specificity, SUBJ = subjunctive

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Competing Interests

The author has no competing interests to declare.

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