PersPred : A Syntactic and Semantic Database for Persian Complex Predicates

First delivery : *PersPred 1.0*

Documentation
Work in progress - version 1.0.0

Pollet Samvelian & Pegah Faghiri
Université Sorbonne Nouvelle
18 rue des Bernardins
75005 Paris, France

{pollet.samvelian, pegah.faghiri}@univ-paris3.fr

June 2013
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Introduction

This document provides a description of PersPred for users.

*PersPred* is a manually elaborated multilingual syntactic and semantic Lexicon for Persian Complex Predicates (CPs), referred to also as “Light Verb Constructions” (LVCs) or “Compound Verbs”. Its first delivery, *PersPred 1.*, contains more than 600 combinations of the verb *zadan* ‘hit’ with a noun, presented in a spreadsheet.

Each line of the database corresponds to the predicative combination of a verb and a non-verbal element, for which various types of information are stored in each column, namely the English and French translation of the verb, of the non-verbal element and the meaning of the complex predicate, its sub-categorization frame and alternations. At least one example extracted from the literature, newspapers or the Internet, illustrates each entry.

A particularly innovative feature of *PersPred* is that it proposes semantic groupings of predicates. This accounts for the productivity of these combinations and thus allows for the integration of the newly coined predicates.

The underlying methodology of *PersPred* combines Maurice Gross’s Lexicon Grammar (1) approach and the semantic classification of English verbs by (2). For a thorough presentation of the theoretical underpinning of *PersPred* please refer to (3) and (5).

*PersPred 1.0* was developed within ANR-DFG PERGRAM (2008-2012) project and is related to the work-package LR4.1 “Developing morphological and syntactic resources for Western Iranian languages” of the Labex Empirical Foundations of Linguistics (financed by the ANR/CGI).

*PersPred* is distributed under the LGPL-LR license and available per request. In publication research that makes use of *PersPred* database, a citation should be given of:


Please note that *PersPred* and this documentation are a constant work in progress for which the status is indicated by the index of the version.
1 Encoded information

PersPred 1.0 contains 22 different fields which are conceived to capture different types of lexical, syntactic and semantic information. Tables 1, 3 and 7 below illustrate these fields via the example of the CP āb zadan ‘to wet’.

1.1 Lemma information

9 fields provide information on the lemma of the CP and its combining parts, including French and English translations of the Noun, the Verb and the CP (cf. Table 1).

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verb</td>
<td>the lemma of the verb (in Persian script)</td>
<td>زدن</td>
</tr>
<tr>
<td>Noun</td>
<td>the lemma of the noun (in Persian script)</td>
<td>آب</td>
</tr>
<tr>
<td>N-transcription</td>
<td>the phonetic transcription of the noun</td>
<td>āb</td>
</tr>
<tr>
<td>V-transcription</td>
<td>the phonetic transcription of the verb</td>
<td>zadan</td>
</tr>
<tr>
<td>CP-lemma</td>
<td>the lemma of the CP</td>
<td>āb-zadan0</td>
</tr>
<tr>
<td>N-FR-translation</td>
<td>the French translation of the noun</td>
<td>eau</td>
</tr>
<tr>
<td>N-EN-translation</td>
<td>the English translation of the noun</td>
<td>water</td>
</tr>
<tr>
<td>CP-FR-translation</td>
<td>the French translation of the CP</td>
<td>mouiller</td>
</tr>
<tr>
<td>CP-EN-translation</td>
<td>the English translation of the CP</td>
<td>to wet</td>
</tr>
</tbody>
</table>

Table 1: Fields related to lexical information for the CP āb zadan

CP·Lemma indicates the “lexical identity” of the CP. Consequently there are as many different lemmas associated to the same combination as its meanings. Thus CP·Lemma allows for distinguishing homonymous CPs on the one hand and regrouping polysemous and syntactically alternating CPs on the other hand. The notation used is as follows: the CP-lemma is encoded by the concatenation of the nominal and the verbal element, linked by a hyphen and followed by a number, beginning from 0 (cf. Table 2).

Homonymous CPs. Homonymous CPs are formed with the same components but refer to clearly different events or situations. For instance, suzan zadan (Lit. ‘needle hit’) means either ‘to sew’ or ‘to give an injection’. A different lemma is associated to each meaning in this case, suzan·zadan0 and suzan·zadan1 (cf. example (4) and (5) in Table 2).

Polysemous CPs. We have adopted an approach favoring grouping of polysemous CPs. In other words, polysemous CPs are assigned the same lemma. For instance, ātaš zadan (lit. ‘fire hit’), has several related meanings corresponding to the same lemma (cf. examples (1)-(3) in Table 2). Polysemy is accounted for by creating different lexical entries.

CPs with syntactic alternations. In some cases, the arguments of the same CP may have different syntactic realizations (e.g. NP vs. PP). Each sub-categorization frame corresponds to a lexical entry, cf. examples (5) and (6) or (7) and (8) in Table 2.
1.2 Argument structure and syntactic construction

5 fields represent the syntactic construction of the CP and its English equivalent through an abstract syntactic template inspired as mentioned above by [1]. Valency alternations and synonymy are also represented through 3 fields: Intransitive, Transitive and Synonymous Variants (cf. Table 3 below).

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synt-Construction</td>
<td>the subcategorization frame of the CP</td>
<td>N0 Prep N1 N2 Verb</td>
</tr>
<tr>
<td>PRED-N</td>
<td>the nominal element of the CP</td>
<td>N2</td>
</tr>
<tr>
<td>Prep-N1</td>
<td>the preposition introducing N1</td>
<td>be</td>
</tr>
<tr>
<td>Prep-N2</td>
<td>the preposition introducing N2</td>
<td>NONE</td>
</tr>
<tr>
<td>Construction-EN-Tr</td>
<td>the English equivalent of the construction</td>
<td>N0 wets N2</td>
</tr>
<tr>
<td>Intrans-Var</td>
<td>the intransitive variant if available</td>
<td>xordan</td>
</tr>
<tr>
<td>Trans-Var</td>
<td>the transitive variant if available</td>
<td>NONE</td>
</tr>
<tr>
<td>Syn-Var</td>
<td>variant if available</td>
<td>NONE</td>
</tr>
</tbody>
</table>

Table 3: Fields related to syntactic information for the CP āb zadan

The sub-categorization frame is provided by Synt-Construction combined with PRED.N, Prep.N1, Prep.N2. In Synt-Construction, N stands for a bare noun or a nominal projection (i.e. NP) and the number following N indicates the obliqueness hierarchy among nominal elements:

- N0 is the 1st argument (subject),
- N1 the direct object,
- Prep N1 the prepositional object and so on.

Note that, the nominal element of the CP is also assigned a number. Even though, semantically, this element does not display typical properties of an argument, from a syntactic point of view it can undergo different operations, which means that it has a syntactic function and must thus be taken into account in the obliqueness hierarchy.
Table 4: Examples of values for fields providing the sub-categorization frame

<table>
<thead>
<tr>
<th>CP-Lemma</th>
<th>Construction-EN-Tr</th>
<th>Synt-Construction</th>
<th>Pred-N</th>
<th>Prep-N1</th>
<th>Prep-N2</th>
</tr>
</thead>
<tbody>
<tr>
<td>namak-zadan0</td>
<td>N0 salts N1</td>
<td>N0 Prep N1 N2 V</td>
<td>N2</td>
<td>be</td>
<td>NONE</td>
</tr>
<tr>
<td>namak-zadan0</td>
<td>N0 salts N1</td>
<td>N0 N1 N2 V</td>
<td>N2</td>
<td>NONE</td>
<td>NONE</td>
</tr>
<tr>
<td>labxand-zadan0</td>
<td>N0 smiles</td>
<td>N0 N1 V</td>
<td>N1</td>
<td>NONE</td>
<td>NONE</td>
</tr>
<tr>
<td>XOD-be-marizi-zadan</td>
<td>N0 feigns sickness</td>
<td>N0 xod-rā Prep N1 V</td>
<td>Prep N1</td>
<td>be</td>
<td>NONE</td>
</tr>
<tr>
<td>zir-xande-zadan0</td>
<td>N0 starts to laugh</td>
<td>N0 Prep N1 V</td>
<td>Prep N1</td>
<td>zir</td>
<td>NONE</td>
</tr>
<tr>
<td>be-ham-zadan0</td>
<td>N0 perturbs N1</td>
<td>N0 N1 Prep N2 V</td>
<td>Prep N2</td>
<td>N3</td>
<td>az</td>
</tr>
<tr>
<td>xat-zadan0</td>
<td>N1 strikes off N1 from N2</td>
<td>N0 N1 Prep N2 N3 V</td>
<td>N3</td>
<td>NONE</td>
<td>NONE</td>
</tr>
<tr>
<td>zamin-zadan0</td>
<td>N0 throws N1 on the ground</td>
<td>N0 N1 [Prep] N2 V</td>
<td>N2</td>
<td>LOC</td>
<td>NONE</td>
</tr>
<tr>
<td>časb-zadan0</td>
<td>N0 put glue on N1</td>
<td>N0 Prep N1 N2 V</td>
<td>N2</td>
<td>N0</td>
<td>NONE</td>
</tr>
<tr>
<td>dād-zadan0</td>
<td>N0 shouts (that Clause)</td>
<td>N0 N1 V (Clause)</td>
<td>N1</td>
<td>NONE</td>
<td>NONE</td>
</tr>
<tr>
<td>paše-zadan0</td>
<td>A mosquito bites N1</td>
<td>N0 N1 V</td>
<td>N0</td>
<td>NONE</td>
<td>NONE</td>
</tr>
<tr>
<td>qeyb-CL-zadan0</td>
<td>TOP disappears</td>
<td>(TOP) N0-CLP V</td>
<td>N0-CLP</td>
<td>NONE</td>
<td>NONE</td>
</tr>
</tbody>
</table>

**PRED-N** specifies which constituent in **Synt-Construction** is the nominal element of the CP (i.e. forms a CP with the verb), and thus takes as its value either N0, N1, N2 or N3 or Prep Nx, in case nominal of the CP is introduced by a preposition. **Prep-N1** and **Prep-N2** indicate either the lemma of the preposition which introduces N1 and N2, in case the preposition is lexically fixed, or otherwise its semantic value.

**Construction-EN-Tr** simultaneously provides the English translation of the CP and the way the arguments of the Persian CP (as encoded in **Synt-Construction**) are mapped with the grammatical functions in the English translation. Table 4 above gives some examples of different values for these fields.

Note that alternations in the argument realization (i.e. direct vs prepositional) give rise to several entries. For instance, the second argument of āb zadan ‘wet’, can either be realized as an NP or a PP (i.e. Dative shift alternation). Consequently, āb zadan has two entries which differ with respect to their **Synt-Construction** feature value: N0 Prep N1 N2 V vs N0 N1 N2 V. Note that these two entries are considered to be two different realizations of the same lemma (i.e. they have the same value for CP-Lemma). Table 5 illustrates different possible values for **Synt-Construction**.

**Valency alternations and synonymy** are provided by **Intrans-Variant**, **Trans-Variant** and **Syn-Variant**. The value of these three features is either a verbal lemma or NONE in the case where no attested variant is available. Table 6 gives some examples of values of these fields for different CPs.

**Intrans-Variant** provides the lemma of one or several verbs that can be used to produce a CP where the Patient (N1 or N2) argument is assigned the subject function, i.e. becomes N0. This alternation is somehow comparable to the passive alternation. **Trans-Variant** gives the lemma of the verb(s) used to add an extra argument (or participant) to the CP. This external participant generally has a Cause interpretation and is realized as the subject of the “transitive/Causative” CP. The first argument of the initial CP is mapped in this case into the Object function. **Syn-Variant** provides the lemma of the set of verbs forming a synonymous predicate with the same noun.
<table>
<thead>
<tr>
<th>Synt-Construction</th>
<th>CP-Lemma</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>N0 Prep N1 N2 V</td>
<td>namak-zadan0</td>
<td>Maryam be sālād namak zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam salted the salad.’</td>
</tr>
<tr>
<td>N0 N1 N2 V</td>
<td>namak-zadan0</td>
<td>Maryam sālād=rā namak zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam salted the salad.’</td>
</tr>
<tr>
<td>N0 N1 V</td>
<td>labxand-zadan0</td>
<td>Maryam labxand zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam smiled.’</td>
</tr>
<tr>
<td>N0 xod-rā Prep N1 V</td>
<td>XOD-be-marizi-zadan</td>
<td>‘Maryam xod=rā be marizi zad.’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam feigned sickness.’</td>
</tr>
<tr>
<td>N0 N1 V (Clause)</td>
<td>dād-zadan0</td>
<td>Maryam dād zad ke barf gereft.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam shouted that it began to snow.’</td>
</tr>
<tr>
<td>N0 Prep N1 V</td>
<td>zir-xande-zadan0</td>
<td>Maryam zir=e xande zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam began laughing.’</td>
</tr>
<tr>
<td>N0 Prep N1 N2 V (Clause)</td>
<td>imeyl-zadan0</td>
<td>Maryam be Omid imeyl zad ke Sārā bezudi miresad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam emailed Omid that Sara would arrive soon.’</td>
</tr>
<tr>
<td>N0 N1-EZ N2 V</td>
<td>jib-zadan0</td>
<td>Maryam jib=e Omid=rā zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam robbed Omid.’</td>
</tr>
<tr>
<td>N0 N1 Prep N2 N3 V</td>
<td>xat-zadan0</td>
<td>Maryam esm=e Omid=rā az list xat zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam crossed Omid's name off the list.’</td>
</tr>
<tr>
<td>N0 Prep N1 N2-EZ N3 V</td>
<td>ettehām-zadan0</td>
<td>Maryam be Omid ettehām=e dozdi zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam accused Omid of robbery.’</td>
</tr>
<tr>
<td>N0 N1 [Prep] N2 V</td>
<td>zamin-zadan0</td>
<td>Maryam Omid=rā [be] zamin zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam threw Omid on the ground.’</td>
</tr>
<tr>
<td>N0 N1 Prep N2 V</td>
<td>be-ham-zadan0</td>
<td>Maryam jalase=rā be ham zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam interrupted the meeting.’</td>
</tr>
<tr>
<td>(TOP) N0-CLP V</td>
<td>qeyb-CL-zadan0</td>
<td>(Maryam) qeyb=eš zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam disappeared.’</td>
</tr>
<tr>
<td>N0 Prep N1-CLP V</td>
<td>zir-qowl-zadan</td>
<td>Maryam zir=e qowl=eš zad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Maryam went back on her promise.’</td>
</tr>
<tr>
<td>N0 N1 N2 N3 V</td>
<td>sedā-zadan0</td>
<td>Omid Maryam=rā Mimi sedā mizad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Omid used to call Maryam Mimi.’</td>
</tr>
</tbody>
</table>

Table 5: Different possible values of Synt-Construction
<table>
<thead>
<tr>
<th>CP-Lemma</th>
<th>Synt-Construction</th>
<th>Intrans-Variant</th>
<th>Trans-Variant</th>
<th>Syn-Variant</th>
</tr>
</thead>
<tbody>
<tr>
<td>jāru-zadan0</td>
<td>N0 N1 N2 V</td>
<td>xordan</td>
<td>NONE</td>
<td>kešidan; kardan</td>
</tr>
<tr>
<td>jelo-zadan0</td>
<td>N0 N1 N2 V</td>
<td>raftan</td>
<td>NONE</td>
<td>bordan</td>
</tr>
<tr>
<td>tarak-zadan0</td>
<td>N0 N1 V</td>
<td>NONE</td>
<td>andāxtan</td>
<td>xordan; bar dāštān</td>
</tr>
<tr>
<td>labxand-zadan0</td>
<td>N0 N1 V</td>
<td>NONE</td>
<td>NONE</td>
<td>NONE</td>
</tr>
</tbody>
</table>

Table 6: Examples of values for valency alternation and synonymy fields

### 1.3 Semantic information

The semantic information is encoded via 3 fields (cf. Table 7 below).

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pred-Sem-Cl</td>
<td>the semantic class of the CP</td>
<td>Spreading</td>
</tr>
<tr>
<td>Pred-Sem-SuperCl</td>
<td>the semantic superclass of the CP</td>
<td>Locatum</td>
</tr>
<tr>
<td>Meaning-Exension</td>
<td>the type of the meaning extension if applicable</td>
<td>NONE</td>
</tr>
</tbody>
</table>

Table 7: Fields related to semantic information for the CP āb zadan

`pred-sem-cl` and `pred-sem-supercl` give the semantic classification of each CP, i.e. the semantic class and the semantic superclass of which the CP is a member (cf. Section 2 for a detailed presentation of these classes). The meaning-extension feature indicates if a CPs has undergone semantic drift, mainly metaphor and metonymy. In the case of a metaphoric extension, the concerned CP is linked to the CP from which it is metaphorically driven.
2 Semantic Classes

CPs with *zadan* are grouped into 45 classes. Each class and its syntactic and semantic properties are presented bellow.

2.1 Aggression

2.1.1 Attacking

(1) **Attacking-zadan Construction**

N0 *(be)* N1 *zadan*  
Agent/Cause Patient

‘N0 attacks/damages N1’

**Nouns:** *dozd* ‘thief’, *malax* ‘locust’, *sarmā* ‘cold’...

In the CPs of this class, the non-verbal element is the N0 (the subject of the CP). The action denoted by the CP can be considered as an “attack” in more or less metaphorics sense: N0 attacks N1 and causes damages.

The productive compound adjective construction pattern [N-*zade*] can be related to this construction: *seyl-zade* ‘flooded’ (Lit. ‘flood beaten’), *sarmā-zade* ‘damaged by cold, frozen’.

2.1.2 Beating

(2) **Beating-zadan Construction**

N0 *(be)* N1 N2 *zadan*  
Agent Patient Strike

‘N0 hits N1 by accomplishing the type of the stroke denoted by N2’

**Nouns:** *čak* ‘slap’, *kešide* ‘slap’, *kotak* ‘beating’, *lagad* ‘kick’, *ordangi* ‘kick’...

**CPs:** *čak zadan* ‘to slap’, *kešide zadan* ‘to slap’, *kotak zadan* ‘to beat’, *lagad zadan* ‘to kick’, *ordangi zadan* ‘to kick’...

(3) Maryam Omid=řā kotak zad  
Maryam Omid=ddo beating hit.r2  
‘Maryam beat Omid.’

The nominal element of the CP is generally a predicative noun denoting stroke given by a body part or the name of a body part which by extension denotes a stroke. The noun *kotak* ‘beating’ can be considered as the generic representative of the class. It is the only noun denoting the beating action by itself.

The most common value for *Intrans-Var* in the CPs of this class is *xordan* ‘to collide’. In some cases, *didan* ‘to see’ can also be the verb used to form the intransitive variant.
2.1.3 Biting

(4) **Biting-zadan Construction**

\[
\begin{array}{ccc}
N0 & N1 & zadan \\
\text{Agent} & \text{Patient} \\
\end{array}
\]

‘N0 bites N1’

**Nouns:** aqrab ‘scorpion’, mār ‘snake’, paše ‘mosquito’...

(5) Mār Omid=rā zad
Snake Omid=ddo hit.r2
‘A snake bit Omid.’

In the CPs of this class, the non-verbal element is the N0 (the subject of the CP). *zadan* can be translated as ‘to bite’ in all the CPs of this class.

2.1.4 Harming

(6) **Harming-zadan Construction**

\[
\begin{array}{ccc}
N0 & (be) N1 & N2 & zadan \\
\text{Agent} & \text{Patient} & \text{Harm} \\
\end{array}
\]

‘N0 provokes harm/damage/loss on/to N1’

**Nouns:** āsib ‘damage’, latme ‘harm’, sadame ‘damage’, zarar ‘loss’...

(7) Tufān be mazra'e=ye māxesārat zad
Storm to farm=ez we harm hit
‘The storm damaged our farm.’

The most common value for Intrans-Var in the CPs of this class is *xordan* ‘to collide’ or *didan* ‘to see’.

2.1.5 Instr-Beating

(8) **Instr-Beating-zadan Construction**

\[
\begin{array}{ccc}
N0 & (be) N1 & N2 & zadan \\
\text{Agent} & \text{Patient} & \text{Instrument} \\
\end{array}
\]

‘N0 hits N1 with N2’

**Nouns:** čāqu ‘knife’, čomāq ‘stick’, šallāq ‘whip’...

(9) Maryam Omid=rā čāqu zad
Maryam Omid=ddo beating hit.r2
‘Maryam beat Omid.’
The CP denotes the action of beating or hitting somebody, carried out by means of an instrument, the nominal element of the predicate. These CPs are in fact instrumental CPs, but they have nevertheless been separated from other instrumental CPs such as jāru zadān ‘to broom’, since the verb zadān here keeps its meaning ‘to hit’, so that the whole CP can be paraphrased by ‘to beat with’.

The most common value for Intrans-Var in the CPs of this class is xordan ‘to collide’.

2.1.6 Projectile

(10) **Projectile-zadān Construction**

<table>
<thead>
<tr>
<th>N0</th>
<th>(be) N1</th>
<th>N2</th>
<th>zadān</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent</td>
<td>Patient</td>
<td>Projectile</td>
<td></td>
</tr>
</tbody>
</table>

‘N0 launches/shoots N2 on/to N1’

**Nouns:** bomb ‘bomb’, golule ‘bullet’, mušak ‘rocket’, tir ‘bullet’...

(11) Došman in mantaqe=rā bomb zad

Enemy this area=ddo bomb hit.r2

‘The enemy bombed this area.’

The most common value for Intrans-Var in the CPs of this class is xordan ‘to collide’.

2.1.7 Verbal-Attack

(12) **Verbal-Attack-zadān Construction**

<table>
<thead>
<tr>
<th>N0</th>
<th>(be) N1</th>
<th>N2</th>
<th>zadān (Clause)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent</td>
<td>Patient/Addressee</td>
<td>(Cutting/sarcastic) remarks</td>
<td></td>
</tr>
</tbody>
</table>

‘N0 launches/shoots N2 on/to N1’

**Nouns:** kenāye ‘sarcastic remark’, niš ‘cutting remarks’, sarkuf ‘bullying’...

(13) Maryam be Omid sarkuf zad

Maryam to Omid=ddo bullying hit.r2

‘Maryam demeaned Omid.’

Apart from the Agent and the Addressee, the CPs of this class can take a clausal complement, denoting the content of the remarks addressed by the Agent to the Addressee.

The most common value for Intrans-Var in the CPs of this class is xordan ‘to collide’.
2.2 Emission

2.2.1 Animal-Cry-Emission

(14) Animal-Cry-Emission-zadan Construction

N0       N1  zadan
Sound Source  Animal Cry
‘N0 emits N1’


(15) Parande čahčahe mi-zad
bird    bird song -ipfv-hit.r2
‘The bird was singing.’

2.2.2 Scream-Emission

(16) Cry-Emission-zadan Construction

N0       N1  zadan (Clause)
Sound Source  Scream/Cry
‘N0 emits N1’


2.2.3 Verbal-Emission

The CPs grouped in this class denote an act of utterance or speaking. They display various syntactic patterns, depending on the semantic participants (i.e. the existence or not of an interlocutor or addressee).

(17) Verbal-Emission-zadan Construction

N0       N1  zadan (Clause)
Source  Speech
‘N0 emits N1 (that Clause)’

Nouns: lāf ‘boasting’, neq ‘grumble’, qor ‘grumble’...

(18) Verbal-Emission-zadan Construction

N0  Prep N1  N2  zadan (Clause)
Sound Source  Addressee  Speech
‘N0 addresses N2 to N1’

Nouns: harf ‘speech’, gap ‘chat’...
2.2.4 Sound-Emission

(19) Sound-Emission-zadan Construction

N0 N1 zadan
Sound Source Sound
‘N0 emits N1’

Nouns: buq ‘horn’, sut ‘whistle’, zang ‘bell’...

2.2.5 Substance-Emission

(20) Substance-Emission-zadan Construction

N0 N1 zadan
Source Substance
‘N0 emits N1’/‘N1 comes out of N0’

Nouns: dud ‘smoke’...

2.2.6 Body-Emission

(21) Body-Emission-zadan Construction

N0 N1 zadan
Source Substance
‘N0 emits N1’

Nouns: atse ‘sneeze’, āroq ‘burp’...

2.2.7 Signal-Emission

(22) Signal-Emission-zadan Construction

N0 Prep N1 N2 zadan
Source Addressee Signal
‘N0 addresses N2 to N1’

Nouns: čerāq ‘light’, češmak ‘wink’...

2.2.8 Light-Emission

(23) Light-Emission-zadan Construction

N0 N1 zadan
Source Light
‘N0 emits N1’

Nouns: barq ‘brightness’, jaraqqe ‘spark’...

2.2.9 Manner-of-Emission

(24) Manner-of-Emission-zadan Construction

\[
\begin{array}{ccc}
N0 & \text{Prep N1} & N2 \quad \text{zadan} \\
\text{Emitted} & \text{Source} & \text{Manner}
\end{array}
\]

‘N0 is emitted in the manner of N2 (from N1)’

Nouns: favvāre ‘water-jet’, favarān ‘irruption’...

2.3 Locative

2.3.1 Movement-to-Location

(25) Movement-to-Location-zadan Construction

\[
\begin{array}{ccc}
N0 & \text{Prep N1} & \text{zadan} \\
\text{Figure} & \text{Destination}
\end{array}
\]

‘N0 goes/throws herself to N1’

Nouns: āb ‘water’, dašt ‘plain’...

2.3.2 Orientation

(26) Orientation-zadan Construction

\[
\begin{array}{cccc}
N0 & N1 & \text{Prep N2} & N3 \quad \text{zadan} \\
\text{Figure} & \text{Theme} & \text{(Origin)} & \text{Orientation}
\end{array}
\]

‘N0 moves N1 (from N2) to N3’

Nouns: aqab ‘back’, bālā ‘top’...

(27) Orientation-zadan Construction

\[
\begin{array}{ccc}
N0 & \text{Prep N1} & N2 \quad \text{zadan} \\
\text{Figure} & \text{(Origin)} & \text{Orientation}
\end{array}
\]

‘N0 moves (from N1) in direction of N2’

Nouns: aqab ‘back’, birun ‘outside, out’...
2.3.3 Ground

(28) **Ground-zadan Construction**

\[
\begin{array}{cccc}
N0 & N1 & \text{Prep N2} & zadan \\
\text{Agent} & \text{Figure/Theme} & \text{Destination/Ground} & \text{Orientation} \\
\end{array}
\]

‘N0 moves N1 to N2’

**Nouns:** dār ‘scaffold’, baqal ‘bosom’...

2.4 Movement-Form

2.4.1 Dangling

(29) **Dangling-zadan Construction**

\[
\begin{array}{cc}
N0 & N1 & zadan \\
\text{Theme} & \text{Dangling} \\
\end{array}
\]

‘N0 dangles’

**Nouns:** lang ‘lame’, laq ‘unsteady’...

2.4.2 Body-Performing

(30) **Body-Performing-zadan Construction**

\[
\begin{array}{cc}
N0 & N1 & zadan \\
\text{Agent/Theme} & \text{Body Performance} \\
\end{array}
\]

‘N0 performs N1’

**Nouns:** poštak ‘sommersault’, beškan ‘click of the fingers’...

2.4.3 Motion-Mode

(31) **Motion-Mode-zadan Construction**

\[
\begin{array}{cc}
N0 & N1 & zadan \\
\text{Agent/Theme} & \text{Motion type} \\
\end{array}
\]

‘N0 moves in the manner/shape of N1’

**Nouns:** čarx ‘rotation’, mowj ‘wave’...
2.4.4 Walking

(32) Walking-zadan Construction

N0 (Prep N1) N2 zadan
Agent/Theme Location Walk

‘N0 takes a walk (in N1)’

Nouns: qadam ‘step’, dowr ‘turn’...

2.4.5 Posture

(33) Posture-zadan Construction

N0 (Prep N1) N2 zadan
Agent/Theme Location Posture

‘N0 takes the posture of N2’

Nouns: čambare ‘circle’, čombāte ‘squatting’...

2.5 Construction

2.5.1 Building

(34) Building-zadan Construction

N0 (Prep N1) N2 zadan
Agent Location Construction

‘N0 builds N2 (in N1)’

Nouns: jādde ‘road’, pol ‘bridge’...

2.5.2 Digging

(35) Digging-zadan Construction

N0 (Prep N1) N2 zadan
Agent (Location) Construction

‘N0 digs N2 (in N1)’

Nouns: čāh ‘well’, tunel ‘tunnel’...
2.5.3 Founding

(36) Founding-

- agents:厚厚
- location:厚厚
- construction:厚厚
- Nouns: maqāţe ‘shop’, matab ‘surgery’...

2.5.4 Installing

(37) Installing-

- agents:厚厚
- location:厚厚
- construction:厚厚
- Nouns: čādor ‘tent’, āftābgir ‘sunshade’...

2.6 Depriving

2.6.1 Cutting

(38) Cutting-

- agents:厚厚
- patient:厚厚
- theme:厚厚
- Nouns: gardan ‘neck’, sar ‘head’...

(39) Cutting-

- agents:厚厚 (N1-EZ)
- patient:厚厚
- theme:厚厚
- Nouns: gardan ‘neck’, sar ‘head’...

2.6.2 Stealing

(40) Stealing-

- agents:厚厚 (N1-EZ)
- patient:厚厚
- theme:厚厚

Nouns: gardan ‘neck’, sar ‘head’...
‘N0 deprives N2 (from N1)’

**Nouns:** *jib* ‘pocket’, *kif* ‘bag’...

### 2.7 Locatum

#### 2.7.1 Incorporating

**(41) Incorporating-żadan Construction**

N0 (Prep) N1 N2 żadan
Agent Ground Figure

‘N0 incorporates/adds N2 (in)to N1’

**Nouns:** *adviye* ‘spice’, *namak* ‘salt’...

#### 2.7.2 Marking

**(42) Marking-żadan Construction**

N0 (Prep) N1 N2 żadan
Agent Ground Figure

‘N0 puts N2 on N1’ or ‘N0 marks N2 with N1’

**Nouns:** *barčasb* ‘label’, *mohr* ‘stamp’...

#### 2.7.3 Putting

**(43) Putting-żadan Construction**

N0 (Prep) N1 N2 żadan
Agent Ground Figure

‘N0 puts/install/hangs N2 on N1’

**Nouns:** *ānten* ‘aerial’, *dastband* ‘handcuff’...

#### 2.7.4 Spreading

**(44) Spreading-żadan Construction**

N0 (Prep) N1 N2 żadan
Agent Ground Figure

‘N0 spreads/applies N2 on N1’

**Nouns:** *sābun* ‘soap’, *vāks* ‘polish’...
2.7.5 Wearing

(45) **Wearing-zadan Construction**

- N0 (Prep N1) N2 **zadan**
- Agent (Body part) Accessory

‘N0 wears N2’ or ‘N0 puts N2 on N1 (= body part)’

**Nouns:** eynak ‘glasses’, māsk ‘mask’...

2.7.6 Slandering

N.B. This CPs are this class are considered as Locatum constructions by extension.

(46) **Slandering-zadan Construction**

- N0 Prep N1 N2 **zadan** (Clause)
- Accuser Accused Accusation Content of accusation

‘N0 accuses N1 [of Clause]’

(47) **Slandering-zadan Construction**

- N0 Prep N1 N2=EZ N3 **zadan**
- Accuser Accused Accusation Content of accusation

‘N0 accuses N1 of N3’

**Nouns:** tohmat ‘slander’, ang ‘slander’...

2.8 BP-Action

(48) **BP-Action-zadan Construction**

- N0 N1 **zadan**
- Agent Body part

‘N0 accomplishes an action implying a contact (often repetitive) between two body parts’

**Nouns:** dast ‘hand’, pelk ‘eyelid’...

2.9 Communicating

(49) **Communicating-zadan Construction**

- N0 Prep N1 N2 **zadan** (Clause)
- Agent Addressee Communication (Content of communication)
‘N0 communicates [Clause] to N1 by means of N2’

(50) Communicating-zadan Construction

N0  N1  N2  N3   zadan
Agent  Addressee  Content of communication  Communication

‘N0 communicates N2 to N1’

Nouns: telefon ‘phone’, faks ‘fax’...

2.10 Consumming

(51) Consumming-zadan Construction

N0  N1  zadan
Agent  Theme

‘N0 consumes/drinks/eat N1’

Nouns: nušābe ‘drink’, ābjo ‘beer’...

2.11 Fissure

(52) Fissure-zadan Construction

N0  N1  N2  zadan
Agent  Theme  Cut

‘N0 cuts/tears/cracks N1’

Nouns: čāk ‘slit’, boreš ‘cut’...

2.12 Deal-Breaking

(53) Deal-Breaking-zadan Construction

N0  Prep N1(-CLP)  zadan
Agent  Agreement

‘N0 breaks/violates (her) N1’

Nouns: qānun ‘law’, qowl ‘promise’...
2.13 Deceiving

(54) Deceiving-\textit{zadan} Construction

\begin{verbatim}
N0  Prep N1  N2  zadan
Agent  Patient  Trick
\end{verbatim}

‘N0 deceives N1’

\textbf{Nouns}: kalak ‘trick’, bolof ‘bluff’...

2.14 Emotion-Stroke

(55) Emotion-Stroke-\textit{zadan} Construction

\begin{verbatim}
(TOP)  N0=CLP  zadan
(Patient)  Emotion=Patient
\end{verbatim}

‘TOP is stroke/overwhelmed by the feeling or state denoted by N0’

\textbf{Nouns}: boht ‘astonishment’, xošk ‘dry’...

2.15 Estimating

(56) Estimating-\textit{zadan} Construction

\begin{verbatim}
N0  N1  N2  zadan
Agent  Theme  Measure
\end{verbatim}

‘N0 measures/assumes/estimates N1’

\textbf{Nouns}: andāze ‘measure’, hads ‘guess’...

2.16 Feigning

(57) Feigning-\textit{zadan} Construction

\begin{verbatim}
N0  xod=rā  Prep N1  zadan
Agent  State
\end{verbatim}

‘N0 feigns N1’

\textbf{Nouns}: bimāri ‘sickness’, čolāqi ‘lame’...

2.17 Forming

(58) Forming-\textit{zadan} Construction

\begin{verbatim}
N0  N1  zadan
Agent  Theme
\end{verbatim}
‘N0 develops N1’ or ‘N0 transforms into N1’

**Nouns:** javāne ‘bud’, juš ‘spot’, yax ‘ice’...

### 2.18 Incohative

(59) **Incohative-zadan Construction**

N0  Prep N1  zadan
Agent Activity

‘N0 starts accomplishing the action denoted by N1’

**Nouns:** gerye ‘cry’, āvāz ‘song’...

### 2.19 Instrumental

(60) **Instrumental-zadan Construction**

N0  ((Prep) N1) N2  zadan
Agent  (Theme?) Instrument

‘N0 accomplishes the conventional action N2 is used for (on N1)’

**Nouns:** jāru ‘broom’, mesvāk ‘toothbrush’...

### 2.20 Looking

(61) **Looking-zadan Construction**

N0  (Prep) N1  N2  zadan
Agent  Theme  Look

‘N0 stares at N1’

**Nouns:** zol ‘NA’, did ‘view’...

### 2.21 Music

(62) **Music-zadan Construction**

N0  N1  zadan
Agent  (Instrument of) music

‘N0 plays N1’

**Nouns:** āhang ‘music’, ney ‘(Iranian) recorder’...
2.22 Playing

(63) Playing-zadan Construction

N0 (Prep N1) N2 zadan
Agent (Partner?) Game
‘N0 plays N2 (with N1)’

Nouns: taxa ‘backgammon’, tenis ‘tennis’...

2.23 Printing

(64) Printing-zadan Construction

N0 N1 zadan (Clause)
Agent Print (Content of print)
‘N0 publishes (Clause)’

Nouns: tīru ‘title’, e’lāmi ‘tract’...

(65) Printing-zadan Construction

N0 N1 N2 zadan
Agent Theme Print
‘N0 publishes N1’

Nouns: tīru ‘title’, čāp ‘printing’...

2.24 Sense-Striking

(66) Sense-Striking-zadan Construction

N0 Prep N1 (=EZ N2) zadan
Theme Sense Patient
‘N0 occurs to N2’ or ‘N2 senses N0’

Nouns: mašām ‘sense of smell’, češm ‘eye’...

2.25 Sport-Stroke

(67) Sport-Stroke-zadan Construction

N0 N1 zadan
Agent Stroke
‘N0 shoots/does a N1’

Nouns: gol ‘goal’, korner ‘corner’...
2.26 Touching

(68) **Touching-zadan Construction**

\[
\begin{array}{llll}
N0 & (Prep)N1 & N2 & zadan \\
\text{Agent} & \text{Theme} & \text{Body part} \\
\end{array}
\]

‘N0 accomplishes an action that involves a contact between N2 (body part) and N1’

**Nouns:** *lab* ‘lip’, *nāxon* ‘nail’...
References


