

# A Cognitive Approach to Light Verb Constructions: Backstage Issues

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## Abstract

Persian Light Verb Constructions (LVCs) have been studied by many scholars. Yet, little attention has been paid to the process of LVC formation. This paper aims to situate the components of Persian light verb constructions in contexts that can be justifiably invoked as a motivation for LVC formation. We will investigate the issue by arguing that Persian LVCs can be analyzed in terms of incorporation process. This process, explained from a cognitive viewpoint, involves LVCs originating from complete clauses, then passing through a *compositional path* (Langacker 1987, 2008) where a nonverbal and a verbal element are selected out of a kernel clause and end up in a complex predicate (CPr). The investigation will be primarily focused on the LVCs constructed with LV *kardan* 'do, make', as the most frequently used light verb in Persian. The paper will also explore how different paths could be associated with certain particular 'light' meanings of *kardan*. The resulting LVCs may further yield *constructional schemas* upon which other LVCs formed with a given LV can be formed.

**Keywords:** Light verb construction, Complex predicate, Incorporation, Persian

## 1. Introduction

Light verb constructions in Persian have attracted the attention of many grammarians and linguists (e.g. Dabir-Moghaddam 1997; Karimi-Doostan 1997, 2011; and Family 2006; to mention just a few). Their studies, however, have been mainly focused on aspects like the contrast between lexical vs. syntactic status of LVCs, semantics of LVs, compositionality vs. idiomaticity of LVCs, as well as the argument structure of LVCs as relates to their components. Moreover, some of them have dealt with these aspects by concentrating on grammatical and semantic properties of the components, trying to account for the issues already mentioned in terms of properties such as aspectual, thematic and event-structural ones. In such accounts, every property of an LVC, for example its argument structure, is assumed or argued to be identical to, or inherited from, the same property of a relevant component, (either LV or preverb (PV)). By making such generalizations, they are deemed to overlook the exceptional cases in which the relevant properties of the components do not correspond to that of the whole LVC as a single predicate. To fill out this gap, this paper provides an alternative account, specifically to uncover ‘the backstage of LVCs’, i.e. the way in which LVCs are formed. We hope this investigation will shed some new light on certain aspects of complex predicates, such as the semantics of LVs and their selection, which otherwise may be hardly explained satisfactorily. More specifically, we propose an incorporation-based proposal for the Persian LVC formation and try to hypothesize a scenario for this process by employing the notion of *compositional path*.

This paper is organized as follows. In section 2 we discuss about the lexical status of Persian CPRs. Section 3 introduces, in the spirit of Mithun (1984), the basic thesis that Persian CPRs can be considered as incorporating constructions. In section 4, this proposal is further developed and elaborated using the notion *compositional path* (Langacker 1987, 2008). Sections 5 and 6 are dedicated to examining the most frequently used Persian LV, i.e. *kardan*, in some detail. In section 7, we suggest an account of the LVCs for which no direct compositional path could be assumed, and then classify LVCs in terms of their LVs’ semantic contribution. Finally in section 8, we conclude by offering a kind of generalization for the Persian LVC formation.

## 2. LVCs as lexical items

The majority of Persian verbal notions are constructed by complex predicate formation. Samvelian & Faghiri (in press) report that the Persian language contains about 250 simple verbs, whereas *Farhang-e Bozorg-e Sokhan* (hereafter abbreviated as FBS) [Great Sokhan Dictionary] (Anvari 2002), the most comprehensive Persian contemporary dictionary, lists about 10,000 entries for CPRs.

Complex predicates, also referred to as compound verbs or light verb constructions (LVCs), consist of a nonverbal PV and a verbal element usually named light verb. PVs include a range of categories such as a noun phrase, an adjective, an adverb, or a prepositional phrase. LVs are often selected from an inventory of less than 20 verbs which can also be used as simple full verbs. Most Persian LVCs synchronically have a more or less idiomatic meaning.<sup>1</sup> Examples of LVCs with different kinds of PV are shown in (1):<sup>2</sup>

<sup>1</sup> for a detailed discussion on this issue see Karimi (1997)

<sup>2</sup> Abbreviations: DEF = definite particle, DO = direct object marker, EZ = ezafe particle, IMPF = imperfective, INDEF =

- (1) [*sar*]<sub>N</sub> *kardan* (lit. head + to do) ‘to spend (time)’  
 [*dast-e kam*]<sub>NP</sub> *gereftan* (lit. little hand + to take) ‘to underestimate’  
 [*der âz*]<sub>Adj</sub> *kešidan* (lit. long + to stretch) ‘to lie down’  
 [*jelo*]<sub>Adv</sub> *zadan* (lit. ahead + to hit) ‘to overtake’  
 [*az p â*]<sub>PP</sub> *oft âdan* (lit. from leg + to fall) ‘to collapse’

One of interesting properties of the Persian LVCs is their dual behavior. On the one hand, they behave like words since they undergo morphological derivations such as nominalization, as can be seen in (2)-(3):

- (2) (a) *dust dâštan*  
 friend have  
 ‘to love’  
 (b) *dust-d âr*  
 friend-have  
 ‘lover’
- (3) (a) *gašt zadan*  
 patrol hit  
 ‘to patrol’  
 (b) *gašt-zan-i*  
 patrol-hit-suffix  
 ‘patrolling’

On the other hand, the LVCs in Persian behave like syntactic objects as well. For instance, their parts can be separated by scrambling (4b), or by clitics, morphological material like the imperfective prefixes (4c), or by negation (4d).

- (4) a. Ali dišab **sarm â xord.**  
 Ali last night cold collided  
 ‘Ali caught a cold last night.’  
 b. Ali dišab **sarm â-ye saxti xord.**  
 Ali last night cold-EZ severe collided  
 ‘Ali caught a severe cold last night.’  
 c. Ali dar in hav â **sarm â mi-xorad.**  
 Ali in this weather cold IMPF-collide-PR-3SG  
 ‘Ali will catch a cold in such a weather.’  
 d. Ali dišab **sarm â na-xord.**  
 Ali last night cold NEG-collided  
 ‘Ali didn’t catch a cold last night.’

As a consequence of this dual nature, there has been a continuous debate among researchers concerning the Persian complex predicates as to be regarded as lexical units or not; they have been treated either entirely as syntactic phrases or morphological objects. We put forward two arguments below for the lexical status of Persian LVCs.

Firstly, from a Cognitive Grammar (CG) point of view, **lexicon** is defined as the set of **fixed**

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indefinite, N = noun, NEG = negation, PL = plural, PR = present, PRF = perfective, PROG = progressive, PST = past, sb = somebody, sth = something, tr = transitive.

**expressions** in a language, familiar to the speakers of its speech community. Most of them are symbolically complex (Langacker 2008:208). Granted this definition, there are lexical items larger than words (e.g. *mard-e bi-pul* “the moneyless man”). Langacker adds that “lexical units need not coincide with syntactic constituents; in fact, the elements constituting them need not even be adjacent.” To cite his example, the sequence *take it for granted that* is a lexeme, even though its elements can be noncontiguous as in (5)(b):

(5) (a) Most commentators **take it for granted** [**that** money is the primary source of political influence].

(b) **It** has been **taken** more or less **for granted** by most commentators [**that** money is the primary source of political influence].

Arguments against the lexical status of Persian LVCs are, as noted above, mainly focused on their separability (e.g. Megerdooian 2000; Folli *et al.* 2005; Karimi 2005:12; among others). However, as far as ‘fixedness’ as a defining criterion for lexical items is concerned, the Persian LVCs can be treated as conventionalized expressions designating certain recognizable, unitary concepts of activity or quality. They usually function as monoclausal single predicates, so that they can be paraphrased in other languages by simple verbs. Some examples are *taslyat goftan* ‘to condole’ (lit. condolence to say), *taqyir dadân* ‘to change’ (lit. change to give), and *sedâ zadan* ‘to call’ (lit. voice to hit). Moreover, many of them actually have simplex (near-)synonyms in Persian itself. In a sense, some of these simple/complex equivalent pairs share a verbal root, such as *gerye kardan*  $\approx$  *geristan* ‘to cry’ and *qalt zadan*  $\approx$  *qaltidan* ‘to roll’; but some others do not, like *qarâr dâdan*  $\approx$  *gozâstan* ‘to place’ and *gul zadan*  $\approx$  *fariftan* ‘to deceive’.

The second, a less theory-laden, argument concerns the idiomaticity of most Persian CPRs as shown by examples in (1). Idioms are generally regarded as a common type of lexical items, as their idiomatic reading is stored as a whole by most speakers, rather than being worked out from the literal reading. Thus Jackendoff (2002:167) considers idioms “as a prime case” of lexical items larger than words. Mithun (1984:852), also states that idiomatic NV compounds “simply illustrate the lexical status of the compounding process.”

The Persian LVCs are thus lexical units which are delimited on the basis of conventionality and predicability, even though their phonological components, as shown in (4), do not form a group based on a linear adjacency, i.e. a syntactic constituent or a single morphological object.

To conclude this section, two considerations are noteworthy. First, the ‘process’ of CPR formation must not be confused with its ‘product’. That is, a linguistic entity may be considered as a lexical item, irrespective of whether it is originated in syntax (and then lexicalized), or formed by some morphological process. Second, one of prevalent features of modern linguistic practice challenged by CG is to formulate questions in terms of mutually exclusive alternatives. Langacker (2008:13n.8) calls this the **exclusionary fallacy** which is exemplified by the commonly asked question of whether something is “in the lexicon” or “in the syntax”. This question is considered pointless in CG, as it claims that a neat partitioning between lexicon and syntax is far from evident. Rather, they “form a gradation instead of being sharply dichotomous.” (2008:20)

### 3. Complex Predicates as Incorporating Constructions

A number of scholars have divided the Persian LVCs into two subclasses in terms of their properties like (in)separability (Karimi-Doostan 2011) and (non-)compositionality (Karimi-Doostan 1997). Others have made this division on the basis of compound verb formation processes. Dabir-Moghaddam (1997), however, classifies these processes under two general categories: combination and incorporation. He further argues (1997:25) that “despite the existence of systematic differences between compound verbs formed through combination and incorporation, there is phonological, syntactic, and semantic evidence which substantiates the categorization of the two types as compound verb”. However, his single grouping of these two types is *extensive*, rather than *intensive*<sup>3</sup>, in nature; that is, he merely delineates his intended set of data, describing the similar behavior of two kinds of compound verbs. We consider these similarities only as symptomatic of an underlying common mechanism residing behind the expressions which superficially belong to two different types. Shaghghi (2008), by accepting Dabir-Moghaddam’s incorporation/combination dichotomy, however, provides a hypothetical process for the Persian LVC formation, in which ‘combinational’ complex verbs - having metaphorical or idiomatic semantics - are considered as a later stage of the evolution of ‘incorporating’ ones. She concludes that the Persian complex verbs constitute a continuum, whose opposite ends are occupied by prototypes of incorporating and combinational complex verbs. This is in line with Mithun (1984) who uses the term ‘incorporation’ to refer to any type of compounding “in which a V and N combine to form a new V”. In her view, the N(oun) “bears a specific semantic relationship to its host V— as patient, location, or instrument.” She then identifies four different types of noun incorporation (NI), falling “into an implicational hierarchy, which in turn suggests a path along which NI develops historically.”

This paper elaborates the issue on the basis of Mithun’s (1984) classification and extends her NI to include XI, where X stands schematically for different categories which can be incorporated in V, including the variety of PV categories in the Persian LVCs. We thus posit XI as the ‘common mechanism’ underlying all Persian LVC formation, either directly or indirectly, without consistently adopting her historical implication. We thereby attempt to explicate different relationships discernible between PV and LV, which seem unclear in many cases.

#### 4. Compositional paths

The four NI types classified by Mithun (1984) could all be shown to be found in Persian. We will concentrate only on the first two types, as they can be argued to explain Types III and VI<sup>4</sup> as well.

Mithun (1984:849ff) introduces the Type I NI as ‘composition by juxtaposition’, in which “a V and its direct object are simply juxtaposed to form an especially tight bond. ... [A]s in all compounding, the N loses its syntactic status as an argument of the sentence. ... The VN bond is both semantic and syntactic.” This NI type lowers the valence of the V when it derives intransitive predicates from transitive ones. Compounding of this type is prevalent in Persian and is termed ‘incorporation’ by many Persian linguists (e.g. Dabir-Moghaddam 1997

<sup>3</sup> For the difference between *extensive* vs. *intensive* definitions see Kornai (2008:4)

<sup>4</sup> Rosen (1989) has divided NI into two types, namely Compound NI and Classifier NI, grouping Mithun’s first three NI types under Compound NI.

and Shaghghi 2008). Compare the pair of sentences (6) below. In (6.a), the object (*ket âb*) is independent and has direct object marker, but in (6.b) it is bound to its V and the resulting NV unit functions as an intransitive predicate designating an activity which “is recognized sufficiently often to be considered name-worthy in its own right” (Mithun 1984:848), i.e. ‘book-reading’.

(6) a. man ket **âb**-h â-r â x ând-am  
I book-PL-DO read-PST-1SG

‘I read the books.’

b. man ket **âb** x ând-am  
I book read-PST-1SG

I read a book.’

Although the verb and noun are often written separately, the verb loses its primary stress. Dabir-Moghaddam (1997) provides three further pieces of syntactic evidence to show that these compounds function as integrated units.

In many NV compound verbs, the incorporated noun (IN) is originally the complement of a prepositional phrase (PP) functioning as an adjunct or oblique object of the V, and whose head P is deleted.

(7) Ali be **r âh oft âd** > Ali **r âh** **oft âd**  
Ali to wayfell > Ali way fell

‘Ali set out.’

(8) dar **x âb** **did**-am ke ... > x âb did-am ke ... > **x âb** **didan**  
In sleep<sub>N</sub> saw-1SG that ... > sleep<sub>N</sub> saw-1SG that ... > sleep see

‘I dreamt that ...’ > ‘to dream’

There exist also some complex predicates in Persian whose incorporated elements are adjectives which modify an absent but understood nominal object.

(9) soxan-e **r âst** **goftan** > **r âst** **goftan**  
utterance-EZ true tell > true tell

‘to tell the true utterance’ > ‘to tell the truth’

In (9) the incorporated adjective *r âst* ‘true’ stands for the whole NP (*soxan-e r âst* ‘true utterance’). The absence of the head noun can be ascribed to its ‘givenness’ with respect to the verb ‘to tell’ as well as to the greater *cognitive saliency* of its leftover modifier.

Type II NI, according to Mithun, is a natural extension of Type I, but it goes further than it in having an effect beyond the V itself. “In this second type, the case role vacated by the IN may not disappear, as in the first type - but instead, absorb some other argument of the clause. NI of this kind thus functions both to background an argument within a clause, and to foreground an otherwise oblique argument by promoting it into a primary case role” (Mithun 1984:890). This process is also highly productive in Persian. Objects may be incorporated into transitive verbs to yield new transitive verbs, resulting in the advancement of affected arguments to direct object status. Compare, for instance, the object nouns in the sentences in (10) below adapted from Shaghghi (2008). In (10.a) the simple verb *d âd* ‘gave’ require three arguments to make a well-formed sentence. The valence of this verb is reduced to two after incorporating its object (*šir* ‘milk’). Thus in (10.b) (Type I IN), the (incorporated) direct object is still *šir* ‘milk’, the ‘baby’ being its oblique object. In (10.c) (Type II IN), however,



the direct object is ‘the baby’, which is the benefactive of the transitive complex predicate *šir dâd* ‘breastfed’.

- (10) a. m âdar    **šir**-r â    be    bačče    d âd  
           mother    milk-DO to    baby    gave  
           ‘The mother breastfed the baby’
- b. m âdar    be    bačče    **šir**    **d âd**            (Type I NI)  
           mother    to    baby    milk    gave  
           ‘The mother breastfed the baby’
- c. m âdar    bačče-r â    **šir**    **d âd**            (Type II NI)  
           mother    baby-DO    milk    gave  
           ‘The mother breastfed the baby’

We can take the examples (7)-(9) as evidence for extending NI to XI, where X indicates the instances of categories participating in the complex predicate formation, i.e. nouns and adjectives, through incorporation. More importantly, we can discern from these examples a process for specific CPRs to be formed. This process is characterized by the two sequential steps of selecting a nonverbal and a verbal element out of a whole clause and leaving the rest, leading to a CPR.

These stages cannot be always understood as straightforwardly as in the examples (7)-(10). In many cases, the head noun of an argument of the verb is occasionally omitted and its complement, considered cognitively more salient with respect to the event involved, is incorporated to the verb, as in the examples (11)-(13) below<sup>5</sup> (the understood, linguistically uncoded elements are enclosed in square brackets and the rest are boldfaced).

- (11) [p âsox-e    so? âl-h ây-e]    **emteh ân**[-r â]    **d âdan** > **emteh ân**    **d âdan**  
           [answer-EZ question-PL-EZ]    **exam** [-DO]    **give** > **exam**    **give**  
           ‘to answer the exam questions > to take an exam’
- (12) [dood-e]    **sig âr**[-r â    be-darun-e dah ân]    **kešidan**>    **sig âr**    **kešidan**  
           [smoke<sub>N</sub>-EZ]cigarette[-DO    into    mouth] pull >    **cigarette**    **pull**  
           ‘to inhale the smoke of a cigarette into one’s mouth > to smoke cigarette’
- (13)[az]    **bu**[-ye    čiz-I    pey    be    ân]    **bordan** >    bu    bordan  
           [from] **smell<sub>N</sub>**[-EZ thing-INDEF track    to    it] **take** >    **smell<sub>N</sub>**    **take**  
           ‘to become aware of something by sensing its smell > to scent’

This supposed process can be confirmed mainly by our *encyclopedic knowledge* of the events involved. Such world knowledge enables one to envisage a situation expressed by a well-formed clause, which in turn sets the scene for the incorporation of an argument (or another dependant) to a simple verb, leading to a complex predicate. As regards (11), for

<sup>5</sup> Shaghghi (2008) proposes similar processes to show the evolution of combinational complex verbs like *tâb âwardan* ‘to endure’ (lit. to endurance-bring), *bâr âmadan* ‘to be trained’ (lit. to fruit-come), etc. out of incorporating constructions. The word ‘evolution’ recalls, as asserted by Shaghghi, diachronic studies, which of course could illuminate such a process in many cases. However, a careful consideration of the examples (11)-(13) suggests that in most complex verbs, such a process is not likely to be diachronically attested.

example, our encyclopedic knowledge pertaining to ‘taking an exam’ tells us that this activity involves answering questions, among other things. This makes clear the syntagmatic relationship between PV and LV (whose collocation otherwise seems odd in (11)-(13)) and thus justifies the sequential steps proposed for the formation of the LVC in question. It therefore seems more appropriate to describe such steps as constituting a *formation path* for a complex predicate or, to borrow Langacker’s (1987, 2008) term, its *compositional path*. We use the latter term somewhat differently from its Langackerian sense. His *compositional path* begins at the lowest level with the ultimate components, which stand in the background relative to the composite structure, whereas we place a whole clause in the first step of a path, which incidentally includes the immediate constituents of the resulting LVC. In a given LVC, then, the component structures are to be considered as ‘stepping-stones’ for ‘reaching’ the composite form and meaning, rather than as its ‘building-blocks’. To quote Langacker (2008:166), “[w]hile component structures serve to evoke a composite structure, and provide a way of apprehending it, the latter should not be thought of—in any strict or literal sense—as being constructed out of them. Stepping-stones are not the same as building blocks.” Thus we can argue that an established LVC like *emteh ân dâdan* (‘to take an exam’) incorporates what Langacker calls “conventional ways of accessing a certain range of encyclopedic knowledge” (2008:49) — including ‘to give answer to the exam questions’ in this case.

Accepting that (i) the Persian LVCs are lexical items (see section 2 above), and (ii) “lexical items reside in conventional paths of access to domains of knowledge that are evoked both variably and probabilistically” (Langacker 2008:41), we can now say that an LVC may be arrived at via alternate compositional paths. For every complex verb, therefore, more than one possible compositional path are conceivable in principle, depending on which parts of the “range of encyclopedic knowledge” (pertaining to the process *profiled* by that complex verb)<sup>6</sup> are accessed. For example, apart from the path depicted for *emteh ân dâdan* ‘to take an exam’ (lit. to exam-give) in (11), the following path may also be proposed, as ‘to take a written exam’ profiles a process which involves as well ‘to give a paper to the examiner’:

- (14) [barga-ye] **emteh ân**[-r â be momtâhen] **dâdan** > **emteh ân dâdan**  
 [paper-EZ] **exam** [-DO to examiner] **give** > **exam give**  
 ‘to write and give the exam paper to the examiner > to take an exam’

It should be emphasized that by positing a compositional path, we would by no means claim that such a path necessarily represents the actual course of development for the Persian complex predicates. Rather, it is only meant to situate the components of the Persian light verb constructions in the contexts that can be justifiably invoked as a motivation for their formation.

### 5. Analysis of *kardan* LVCs

In the light of the previous discussion, in this section we examine the most commonly used light verb in Persian complex predicates, i.e. *kardan* (lit. to do). We should first identify different kinds of putative LVCs containing this verb as their verbal component. These constructions can be classified at least in three ways:

<sup>6</sup> A basic proposal of CG is that a verb profiles a process. (Langacker 2008:112)



i. Classification by PV type: Dabir-Moghaddam (1997) has classified compound verbs in terms of grammatical category of their PVs. He thus lists the kinds of combinational compound verbs as follows: *adjective + auxiliary*, *noun + verb*, *prepositional phrase + verb*, *adverb + verb*, and *past participle + passive auxiliary*. As for incorporation, he states, the incorporated element would be either direct object (which is always a noun phrase) or prepositional phrase. In such classification, *kardan* LVCs are divided into two groups, namely with a nominal PV or with an adjective PV. Since these categorial types may be included to the next two classifications below, we ignore this kind of grouping.

ii. Classification by (non)causativity of LVC: Dabir-Moghaddam (1997) has listed causative constructions, including instantiations of the schema *Adj + kardan*, under combinational compound verbs. Such strings have been studied more carefully by Tabataba'i (2005) who argues that almost all '*Adj + (causative) kardan*' strings are obtained by applying causativization process on copulative constructions, i.e. '*predicate (Adj) + copula*' strings, and thus they must not be considered as compound verbs. Some examples are *barjaste kardan* 'to highlight' (lit. to prominent-make), *pâre kardan* 'to tear up' (lit. to torn-make) and *jodâ kardan* 'to separate' (lit. to separate<sub>Adj</sub>-make). Moreover, some instances of '*N + kardan*' schema may also be causatives. Consider the following examples:

(15) m âdar-am toxm-e-morq-h â-r â nimru kard  
 mother-1SG egg-EZ-hen-PL-DO fried-egg made  
 'My mother fried the eggs.'

(16) mi-x âh-am soxanr âni-am-r â maq âle kon-am  
 PROG-want-PRESENT-1SG lecture-1SG-DO paper make-PRESENT-1SG  
 'I want to develop a paper out of my lecture.'

The expressions *nimru kardan* (lit. to fried-egg-make) and *maq âle kardan* (lit. to paper-make) are not listed in dictionaries because *kardan* in such constructions is a causativizer auxiliary which means 'to change (sth) to'. They are therefore semantically transparent syntagms which do not need to be included as separate lexical entries. In previous studies on causative constructions, however, such strings have been grouped under complex predicates.

Since the nominal element of copulative causative constructions belongs to an open set, and due to the fully transparent semantics of these constructions, we exclude the instances of this productive pattern (like (15)-(16)) from the set of compound verbs. However, we will regard non-causative instances of the very schema, i.e. *N + kardan*, as compound verbs and try to examine and explain the incorporation phenomenon involved.

iii. Classification by semantics of *kardan*: Karimi-Doostan (1997:103ff) subdivides the instantiations of the schema *N/Adj + kardan* in terms of two possible senses of *kardan* ('to do' and 'to make'). He considers 'make' constructions, like *xošhâl kardan* 'to make happy', as causatives, hence disregarding *kardan* as a light verb in such constructions. Nonetheless, he *does* regard 'do' constructions as LVCs, such as *sekte kardan* (lit: to heart-attack-do) 'to have a heart attack', *pareš kardan* (lit: to jumping-do) 'to jump', and *mâšin kardan* (lit: to machine-make) 'to typewrite', believing that all 'light' instances of *kardan* have this meaning. He provides further examples as follows:

- (17) m âdar bačče-r â ?âr âm kard (Causative)  
 mother baby-DO silent made.  
 ‘The mother calmed down the baby.’
- (18) ?âft âb barf-r â ?âb kard (Causative)  
 sunshine snow-DO water made  
 ‘The sunshine melted the snow.’
- (19) m âdar b âyad bačče-aš-r â r ânnam â?i konad (Active LVC)  
 mother must child-her-DO advice do-PR-3SG  
 ‘The mother must advise her child.’

We may notice that this classification is almost co-extensive with the previous one. Since in the previous subsection (ii) we excluded causative constructions from the data under study, we now embark on investigating those LVCs whose verbal component is, according to Karimi-Doostan, the light version of *kardan* in its ‘do’ sense. We will do so from an incorporational point of view, trying to propose the compositional path for some of such complex predicates.

To capture the variety of senses of the verb *kardan*, we have consulted FBS. It lists 36 senses for *kardan*, among which the sense No.8 ‘change sth into another’ is the one to which we may ascribe the causative usage of *kardan* as described above. Here is one of its examples according to FBS:

- (20) âft âb yax-h âr â âb kard.  
 sunshine ice-PL-DO water make-PST-3SG  
 ‘The sunshine melted the pieces of ice.’

The predicate *âb kard* ‘melted’ is a causative construction. Since we maintain that PVs are incorporated to *kardan* in (non-causative) LVCs containing it, the relevant PVs must proposedly be arguments or dependants of *kardan* in one of its senses other than No.8 above. So we continue by citing some of these senses and examining the possibility for ascribing the relevant LVCs to them.

**Sense 1.** (tr) to do; to practice. In LVCs whose PVs refer to some act or activity, PV can well be considered as the object of *kardan* and thus incorporated to it. There are plenty of such LVCs, some of which are *este ?fâ kardan* ‘to resign’ (lit. to resignation-do), *pareš kardan* ‘to jump’ (lit. to jumping-do), *pazir âyi kardan* ‘to entertain’ (lit. to entertaining-do), *nasb kardan* ‘to install’ (lit. to installation-do), and *sorfe kardan* ‘to cough’ (lit. to cough<sub>N</sub>-do). In all these examples, the complex predicate may be transitive or not, depending either on the nature of the action designated by PV, or on PV’s a-structure. Moreover, the PV of a transitive LVC is sometimes omitted, its object or complement being incorporated to the leftover LV, namely *kardan*, to form another LVC (the initial understood LVCs are included in braces).

- (21) qalat{[ ?amal] kardan}> qalat kardan  
 mistake action do > mistake do

‘to act mistakenly > to make a mistake’

In many cases, PV can be thought of as a PP complement, which remains after its head preposition has been omitted:

(22) [b â] **lotf** {[ raft â] **kardan**} > **lotf kardan**  
 [with] kindness behavior do > kindness do  
 ‘to behave kindly > to oblige’

(23) [b â] **howsele** {[ raft â] **kardan**} > **howsele kardan**  
 [with] patience behavior do > patience do  
 ‘To behave patiently > to muster patience (to do sth)’

Some PVs metonymically evoke the relevant action, such as:

(24) *hamm ân kardan* (lit. to bathroom-do) ‘to bathe’ (bathroom stands for ‘to bathe’)

(25) *dav â kardan* (lit. to drug-do) ‘to cure’ (drug stands for ‘to cure’)

There is another group of LVCs whose PV refer to a device or an instrument, like *j âru kardan* ‘to sweep’ (lit. to broom-do), *otu kardan* ‘to iron’ (lit. to iron-do), *kelid kardan* ‘to lock’ (lit. to key-do), *šâne kardan* ‘to comb’ (lit. to comb<sub>N</sub>-do), and *rande kardan* ‘to plane’ (lit. to plane<sub>N</sub>-do). Accepting Dabir-Moghaddam’s (1997) remark that *kardan* “implies a general act” in compound verbs, we should say that these LVCs denote ‘to do an action which is the main function of PV’s referent. So we can depict for them such compositional paths as:

(26) [be vasile-ye] **j âru** [k â-e ân-r â] **kardan** > **j âru kardan**  
 [to instrument-EZ] broom [job-EZ it-DO] do > broom do  
 ‘[by means of a broom] to do its function > to sweep’

(27) [be vasile-ye] **rande** [k â-e ân-r â] **kardan** > **rande kardan**  
 [to instrument-EZ] plane [job-EZ it-DO] do > plane do  
 [by means of a plane] to do its function > to plane

Also in these LVCs, some PVs are interpreted metonymically. For instance, in *qofl kardan* ‘to lock’, *qofl* ‘lock’ metonymically (based on a relation of contiguity) stands for *kelid* ‘key’, hence the synonymy of *qofl kardan* and *kelid kardan*.

**Sense 2 (FBS No.4).** (tr.) to put in; to throw; to push in; to take (into):

(28) malek ?u-r â dar çâh kard

King he-DO in well do

‘The king threw him into a well.’

In some LVCs where *kardan* has this sense, the PV refers to the place into which the object got entered, such as:

(29) [dar] **x âk** **kardan** > **x âk kardan**  
 [in] earth throw > earth throw  
 ‘to put into the ground > to bury’

(30) [dar] **guš kardan** > **guš kardan**  
 [in] ear put > ear put  
 ‘to put in ones ear > to listen’

Again in these examples, PV is the nominal complement of a PP, which is incorporated to the verb after its head preposition has been omitted. Alternatively, sometimes PV is the object

and the prepositional phrase (verb complement) is omitted:

- (31) **nax** [be suzan] **kardan** > [suzan-r â] nax kardan  
 thread [to needle<sub>N</sub>]put > [needle-DO] needle put through  
 ‘to put a thread through a needle’ > to needle

**Sense 3 (FBS No.5).** To retell; to say; to repeat:

- (32) raʔis-e hey d âdâš dâdâš mi-kard  
 boss-DEF repeatedly brother brother PROG-say-PST-3SG  
 ‘The boss kept saying: “o brother! o brother!”’

As a supplement to the FBS No.5 sense definition of *kardan*, we should add ‘to make a sound or voice’ to the senses cited. Some examples of LVCs with this sense of *kardan* (as their LV) are *âh kardan* ‘to sigh’ (lit. to ah-say), *fary âd kardan* ‘to cry’ (lit. to cry-say), *qorreš kardan* ‘to roar’ (lit. to roaring- say), and *jik jik kardan* ‘to chirp’ (lit. to chirp- say). Some of such LVCs stand metonymically for an action which is associated with a sound denoted by (a typically onomatopoeic) PV, like *fut kardan* ‘to blow’ and *qerqere kardan* ‘to gargle’.

Now consider the following three senses:

**Sense 4 (FBS No.18).** To construct a building; to build:

- (33) avval x âneq âh be Šâm **kard-and**  
 first monastery at Levant build-PST-3PL  
 ‘They built the first monastery at Levant.’

**Sense 5 (FBS No.20).** To make; to produce:

- (34) T âlut mard-I dabb âq bud; adim **kardi**  
 Saul man-INDEF tanner was; leather make-PST-PROG-3SG  
 ‘Saul was a tanner; he made leather.’

**Sense 6 (FBS No.21).** To create:

- (35) naxl-e tan âvar **konad** ze d âne-ye xorm â  
 palm-EZ big create-PR-3SG from stone-EZ date  
 ‘He creates a big palm out of a date stone.’

The senses 4-6 can be regarded as varieties of, or encapsulated in, a single sense, namely ‘to make’. Some of the intransitive LVCs are formed by incorporation of an object (the thing which is made) to *kardan* in this sense, like *toxm kardan* ‘to lay eggs’ (lit. to egg-make), *l âne kardan* ‘to nest’ (lit. to nest-make), and *ban â kardan* ‘to construct’ (lit. to building-make).

We may note in passing that the presence of *kardan* in ‘to make’ sense in a construction doesn’t necessarily render it causative. (In)transitivity of the resulted LVC as well as literal/figurative meaning of its components are also relevant in this regard.

The variety of the heavy senses of *kardan* as corresponding to its light uses confirms Brugman’s (2001) claim that polysemy in “light verbs are systematically related to their heavy counterparts”.

## 6. ‘Light’ verbs: light or heavy?

Ironically, we have observed nothing ‘light’ about verbal components of LVCs thus far. After all, light verbs by definition are of less semantic ‘weight’ than their full or ‘heavy’ counterparts. However all the senses of the ‘light’ verbs considered in the two previous sections, especially in the LVCs containing *kardan*, are their ‘heavy’ senses, simply because

the verbal components were shown to be remnants of fully-fledged clauses where *kardan* was functioning as a full verb. But this is not the entire story.

We said, while explaining the incorporational nature of LVCs containing *kardan*, that whenever a PV is not itself an argument of *kardan*, we may assume a compositional path for representing the way the LVC in question is formed. There are still a plenty of LVCs which are very difficult, if not impossible, to be treated as such. Some examples are *lagad kardan* ‘to step on’ (lit. to kick<sub>N</sub>-do), ‘to wait’ (lit. to waiting-do), *javâb kardan* ‘to reject’ (lit. to answer<sub>N</sub>-do), *rang kardan* ‘to paint’ (lit. to paint<sub>N</sub>-do), *yax kardan* ‘to get cold’ (lit. to ice-do), *hâl kardan* ‘to enjoy oneself’ (lit. to mood-do), *mohr kardan* ‘to stamp’ (lit. to stamp<sub>N</sub>-do), *duri kardan* ‘to stay away’ (lit. to remoteness-do), and *xu kardan* ‘to get used to’ (lit. to habit<sub>N</sub>-do). In some of such LVCs, even if we could assume a putative path, the semantic content of the omitted element(s) outweigh the residuals and our path would therefore be accusable of being unnaturally adhoc. Consider this path:

(36)kasi-râ [bâ] **javâb**[-e manfi rad] **kardan**>kasi-râ javâb kardan  
 sb-DO [from] answer[-EZ negative reject] do> sb-DO answer do  
 ‘To disappoint sb with one’s negative answer > to reject’

We notice here that the meaning of the residual element *javâb* ‘answer’ is virtually neutral with regard to the ‘core’ of the LVC’s *semantic pole*, namely [DISAPPOINT]. In some other cases, depicting a compositional path requires recursion, making our path unnecessarily lengthy and a bit far-fetched. For instance, if we consider *metr kardan* ‘to measure’ (lit. to metre-do) as resulting from a compositional path like (37), then we have to assume also another compositional path for *hesâb kardan*.

(37)[tul-e čizi-râ be] **metr** {[hesâb] **kardan**}> **metr kardan**  
 [length-EZ sth-DO to] metre {[calculation] do}> metre do  
 ‘to measure the length of sth in metres > to measure’

That being so, it seems that we can regard *kardan* as a light verb proper, or a verbalizing functional element for producing verbs out of nonverbal elements. This is in keeping with Vahedi-Langrudi’s (2000) account who considers the role of *kardan* in LVC formation as exactly the same as that of suffix *-idan* (which he calls *zero abstract light verb*) in forming Persian denominal verbs like *jangidan* ‘to fight’, *raqsidan* ‘to dance’ and *fahmidan* ‘to understand’ with nonverbal bases *jang* ‘fight<sub>N</sub>’, *raqs* ‘dance<sub>N</sub>’ and *fahm* ‘understanding<sub>N</sub>’, respectively.

We accept this account for three reasons. First, many LVCs containing *kardan* make little, if any, sense of action on the part of their subjects. Examples such as *vafât kardan* ‘to pass away’ (lit. to death-do), *eftexâr kardan* ‘to be proud of’ (to honour<sub>N</sub>-do), and *araq kardan* ‘to sweat’ (lit. to sweat<sub>N</sub>-do) can provide evidence for *kardan* to be a grammatical element in constructions of these sort, for no clear contribution to their semantic pole could be attributed to *kardan*.

The second evidence is provided by LVCs whose PV are loanwords which are originally Arabic infinitives, like *mo?âmele kardan* ‘to deal’ (lit. to deal<sub>N</sub>-do), *sa?y kardan* ‘to attempt’ (lit. to attempt<sub>N</sub>-do), *tarjome kardan* ‘to translate’ (lit. to translation-do), *este?mâr kardan* ‘to



colonialize’ (lit. to colonialism-do), *tahrik kardan* ‘to stimulate’ (lit. to stimulation-do), *tašakkor kardan* ‘to thank’ (lit. to thank<sub>N</sub>-do), *eqteb âs kardan* ‘to adapt’ (lit. to adaptation-do), *enqelâb kardan* ‘to revolt’ (lit. to revolution-do), *eqfâl kardan* ‘to deceive’ (lit. to deception-do), and *hesâb kardan* ‘to calculate’ (lit. to calculation-do). These infinitives are categorized as nouns both in Arabic and in Persian and need to be able to inflect in order to convert into verbs. Persian allows this through attaching such nouns either to a *schematic* light verb, namely the verbalizing suffix *-idan*, or to a *specific* one, which is most frequently *kardan*. According to Tabataba’i (2004) the second component of both denominal verbs and LVCs is “a grammatical element which allows the first [nonverbal] component to function as a verb”. The former possibility which results in formation of denominal verbs is not so much productive in Persian and thus “during the past thousand years, not only every new verbal notion has been formed periphrastically, but also regular simple verbs have been day by day replaced by periphrastic forms” (Sadeghi 1993).

In CG terms, we can say then that the function of *kardan* in these constructions is to convert a *non-processual relation* (infinitive) into a *processual* one (verb) (see Langacker 2008:99 for the distinction between the two).

Third, perhaps most importantly, *grammatical markers* (alternate terms for which include “grammatical morpheme”, “function word”, “empty word”, “formative”, and “closed-class element”) are characterized in CG as being specific at the *phonological pole* and tending at the same time to be quite schematic at the *semantic pole*, their meaning being tenuous, abstract, and hard to elucidate (Langacker 2008:22-3). Having this definition in mind, we observe that [KARDAN] (which stands for the semantic pole of *kardan*) denotes by itself none of the senses explicated in section 5, nor the processes profiled in relevant LVCs (e.g. in *ʔomr kardan* ‘to live’ (lit. to life-do) and *tafâvot kardan* ‘to differ’ (lit. to difference-do)); it evokes those processes only schematically. The schematic unit *PV + kardan* can thus be validly posited as a *constructional schema* that provides the basis for composition of LVCs (with PVs of different sorts). But through what process is established this constructional schema?

Assume –as Langacker (2008:222ff) has explicated – that [A] is a conventional unit of a language L, and (B) is the facet of the usage event U it categorizes. These can be of any size or any kind (e.g. sounds, lexical items, grammatical constructions). Their relationship can be one of *elaboration* (→) or *extension* (--->). Formulaically, using square brackets and parentheses for units and nonunits, the categorizing relationship can thus be given as either ([A] → (B)) or ([A] ---> (B)). Such categorization is depicted in figure 1 below (excerpted from Langacker 2008:226). Langacker (2008:225) goes on as follows:

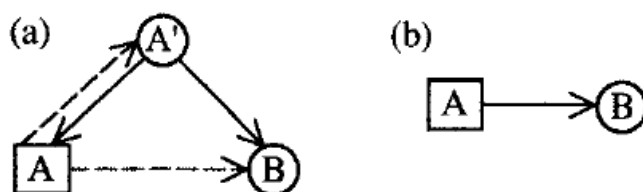


Figure 1.



As a general matter, extension relies on the implicit apprehension of something common to the source and target. Suppose we think of categorization in terms of the categorizing structure being “recognized” in the target. Its recognition is unproblematic when it is wholly immanent in the target, in which case their relationship is elaborative: ([A] → (B)). When the target conflicts in some respect with the categorizing structure, recognition engenders a certain amount of “strain”. It can only come by suspending or at least overriding features of [A], to obtain an abstracted structure, (A’), observable in the target: ((A’) → (B)). As shown in figure [1] (a), (A’) is thus an extension from [A] (arising as a stripped-down version of it), as well as being schematic vis-à-vis both [A] and (B). We can therefore posit an intimate relationship between extension and schematization: extension from [A] to (B) facilitates the emergence of a more schematic structure, (A’), with respect to which both [A] and (B) are elaborations.

In the case of *kardan*, the original, extended, and schematic senses (‘to do’, ‘to make, to change, etc.’, and ‘-idan’, respectively) are all well-established and capable of being evoked as its meaning, depending on the context. They are thus related as shown in figure 2, where the heavy-line box indicates that the original meaning [KARDAN<sub>1</sub>] (i.e. ‘to do’) is prototypical and most easily elicited in LVCs like *âzmâyeš kardan* ‘to test’ (lit. to test<sub>N</sub>-do), *varzeš kardan* ‘to exercise’ (lit. to sport<sub>N</sub>-do), *esteqbâl kardan* ‘to welcome’ (lit. to welcome<sub>N</sub>-do), and *tamrin kardan* ‘to practice’ (lit. to practice<sub>N</sub>-do). The right-hand box [KARDAN<sub>i</sub>] (where i = 2, 3,...) indicates other senses of this verb as an LV, which are extended from [KARDAN<sub>1</sub>] (given the polysemy of *kardan*) and exemplified in section 5 by such LVCs as *xâk kardan* ‘to bury’ (lit. to earth-do) and *lane kardan* ‘to nest’ (lit. to nest<sub>N</sub>-do). Finally, the upper box indicates the most schematic or the ‘lightest’ version of the LV *kardan*. It functions almost equivalently to the suffix *-idan* which is a verbalizing element producing verbs out of nonverbal elements. This version of *kardan*, lacking much semantic content, is schematic with respect to the two other versions, and at the same time is extended from [KARDAN<sub>1</sub>] by virtue of becoming devoid of its content in the process of extension from [KARDAN<sub>1</sub>] to [KARDAN<sub>i</sub>].

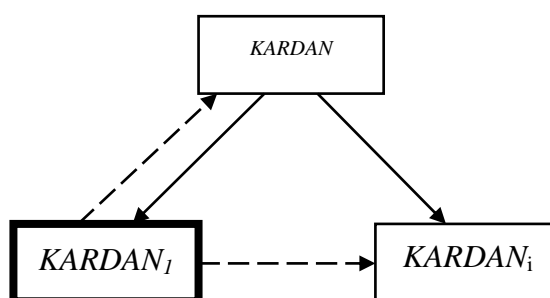


Figure 2.

This mini-network is part of a somewhat larger network representing the conventional semantic value of *kardan*, including both its heavy and light uses. In learning to properly use the verb *kardan* and its corresponding constructional schema, i.e. *PV + kardan*, a speaker masters the entire network (not just the schema or the prototype).

## 7. Beyond *kardan*

Sometimes the constructional schema emerging from an existent LVC provides a

well-trodden path for combining its LV and a new element with which no relationship or collocation is otherwise conceivable. For example, in *telefon zadan* ‘to telephone’, the PV *telefon* ‘telephone’ could by no means be regarded as an argument or adjunct of the LV *zadan* ‘to hit’. There has already existed, however, *telegrâf zadan* ‘to telegraph’ (lit. to telegraph<sub>N</sub>-hit) whose LV (*zadan*) has a more clear semantic relationship with ‘telegraph’ (after all, in earlier telegraphy systems, the message used to be sent actually by pressing Morse keys, construed in Persian as ‘hitting the keys’). Accordingly, this LVC has handed down the schematic assembly  $X + zadan$  for designating communication via systems emerged after telegraphs, like telex, telephone, [two-way] radio, facsimile, e-mail, and SMS, thus *sanctioning* the formation of the novel LVCs *teleks zadan* ‘to telex’ (lit. to telex<sub>N</sub>-hit), *telefon zadan* ‘to telephone’ (lit. to telephone-hit), *bisim zadan* ‘to make a radio call’ (lit. to radio-hit), *faks zadan* ‘to fax’ (lit. to fax<sub>N</sub>-hit), *imeyl zadan* ‘to e-mail’ (lit. to email<sub>N</sub>-hit), and *esemes zadan* ‘to send an SMS’ (lit. to SMS-hit) respectively.<sup>7</sup>

Considering this kind of LVCs and the more conventional, directly formed ones previously explained, now we are in a position to say that the semantic contribution of LVs falls into one of the two following possibilities depending on how the LVC in question is formed:

i. **Compositional path is directly conceivable.** When this is the case, the semantics of LV is equivalent to, or derived from, a main or extended sense of its non-light counterpart, as in *emteh ân dâdan* ‘to take an exam’ (lit. to exam-give), *xâb raftan* ‘to fall asleep’ (lit. to sleep<sub>N</sub>-go), and *lâne kardan* ‘to nest’ (lit. to nest<sub>N</sub>-do).

ii. **Compositional path is indirectly accessible through a constructional schema.** In this case, the LV’s semantic contribution can be thought of as dissolved in the *constructional meaning* of the relevant schema, as in *imeyl zadan* ‘to email’ (lit. to email<sub>N</sub>-hit) whose LV has nothing to do with ‘hit’, but imports a sense of ‘communication’ immanent in the constructional schema  $X + zadan$  which is in turn inherited from *telegrâf zadan* ‘to telegraph’ (lit. to telegraph<sub>N</sub>-hit).

## 8. Conclusion

This paper has analyzed the formation of LVCs in Persian in terms of incorporation process, by concentrating on LVCs constructed with *kardan*. This treatment can be, to a great extent, generalized to the LVCs formed with other LVs, leading to a general proposal for LVC formation as follows:

Complex predicates, by default, could be thought of as being produced by output of XI, passing through a compositional path. In such a path, a given verb ( $V_i$ ) incorporates one of its (direct or oblique) arguments or dependants, maintaining its primary or extended ‘heavy’ sense(s). The process may yield a *constructional schema*  $PV + LV_i$ , which in turn *sanctions*  $V_i$  (with its own literal or figurative meaning) to compound with another element, obtaining an LVC whose meaning is *a function of* its components, rather than the *sum* of them. Such a constructional schema can then provide a new ‘compositional path’ for other LVCs to be formed, to the extent that the meaning of LV may not be easily apprehended in the novel

<sup>7</sup> Samvelian & Faghiri (2014), while explaining the same set of data (excluding ‘telex’ and ‘fax’ as PVs to *zadan*) in terms of analogical extension from existing constructions to the more recent ones, find it impossible to assign a meaning to *zadan* in none of these combinations.

composite units.

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