COMPOUND VERBS IN PERSIAN

Mohammad Dabir-Moghaddam
Allameh Tabataba'i University
DABIR_MO@NET1CS.modares.ac.ir

Persian compound verbs are studied by traditional grammarians and linguists of different persuasions. The article reviews the previous scholarship on this topic and suggests that there are a number of compound-verb formation processes with varying degrees of productivity in the lexicon of Persian. These processes are classified under two general categories: 'Combination' and 'Incorporation'. It is shown that in a large number of compounds composed via combination the verbal part is a lexicalized simple verb which serves as an aktionsart marker. It is argued 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 verbs. Putting Persian facts within the perspective of the theoretical stances on this topic, it may be noted that the findings of this article support the claims of Mithun 1984, Rosen 1989, and Spencer 1995 concerning the morphological/lexical nature of incorporation.

1. Introduction

In this article 'Compound Verb' refers to a verb whose morphological structure is not simple but consists of a non-verbal constituent, such as a noun, adjective, past participle, prepositional phrase, or adverb, and a verbal constituent. Though there is a large literature on compound verbs in other languages and in Persian (see section 2) a satisfactory treatment of this category in Persian has not yet been provided. This article aims to be a contribution in this respect. The research intends to be both descriptive and explanatory.

I suggest that as a compound verb is made up of two otherwise independent constituents that form a compound word, we are consequently dealing with a lexical process in the lexicon. Considering the category of compound verbs in Persian as a lexical process does not mean that we are facing a nonproductive process in the lexicon. The fact of the matter is that there are a number of lexical processes with varying degrees of productivity involved in the formation of compound verbs in Persian. These processes are classified under two general headings: 'Combination' and 'Incorporation'. In compounds formed through combination, an adjective, noun, prepositional phrase, adverb, or past participle has combined with a verb. In the formation of compounds via incorporation, a nominal element

functioning as a direct object loses its grammatical ending(s) and some preposi- tional phrases functioning as adverbs of location lose their preposition and incor- porate with the verb. Therefore, in incorporation there is always a corresponding nonincorporated construction. Despite this difference and some others that will be discussed later, it will be argued that the verbs formed through combination and incorporation are morphologically compound.

In addition to this introductory section, the article consists of three others. Section 2 introduces previous scholarship on this topic, section 3 presents a new proposal for the treatment of Persian compound verbs, and section 4 recapitulates the conclusions arrived at in the article and suggests implications.

2.   Previous scholarship

In this section, the influential studies that have described compound verbs in dif- ferent languages of the world and have theorized about them will be reviewed first. Then the major contributions of Iranian and non-Iranian grammarians and linguists on Persian compound verbs will be introduced. Although these contribu- tions have provided illuminating insights into the nature of compound verbs in this language, a systematic and comprehensive description of these verbs in Persian still remains to be presented, and the implications of the findings of this descrip- tion need to be spelled out. The present article pursues these two goals.

2.1   Compound verbs in languages of the world

The earliest studies falling under the category called compound verbs in this arti- cle are P. S. Du Ponceau 1819, Kroeber 1909, Sapir 1911, and Kroeber 1911, which have dealt with 'noun incorporation' in American Indian languages. Appar- ently after a few decades of inattention this topic has received renewed interest. Woodbury 1975, Mardirussian 1975, Sadock 1980, 1986, 1991, Mithun 1984, 1986, Baker 1988, Rosen 1989, Klaiman 1990, Miller 1993, and Spencer 1995 are major recent contributions. A synopsis of the main issues raised by these studies is in order.

According to Kroeber 1909, 'Noun incorporation is the combination into one word of the noun object and the verb functioning as the predicate of a sentence' (541). In his opinion incorporation as defined above is 'syntactical' (543, 544) in nature. He states, 'It is a current belief that such incorporation is common in these [= American] languages. But unprejudiced analysis reveals that at least the greater number of American idioms are free from the alleged process' (541).[1]

Sapir 1911 is a rebuttal to Kroeber 1909. He announced the aim of the paper was '... to give a usable definition of the term [noun incorporation] and to show that several of these stocks [= the linguistic stocks of America] actually make use of the process' (250). Sapir believes that first of all, since in American languages not only objects, but also instrumentals, locatives, and in some cases even subjects may be incorporated with the verb, the setting up of as broad a definition as possi- ble for the process is justified and that secondly, 'this definition is of a purely morphologic, not syntactic, character' (257).

Mithun 1984 considers noun incorporation (NI) as a 'morphological construction' and observes: 'Interestingly, all languages which exhibit such morphological structures also have syntactic paraphrases' (847-8) — cf. for the sake of exemplification *to fund-raise* with *to raise funds*. Mithun (848) argues, 'It would certainly be inefficient for languages to preserve exactly equivalent expressions so systematically ... the morphologization itself must be functional'. Subsequently she shows that '... NI is used for four different but related functions' (848).

Like Mithun 1984, Rosen 1989 assumes NI to be a lexical process (a word-formation rule), but unlike the former study, which adopts a functional-discoursal framework, the latter is based on Government-Binding theory (GB) and proposes only two types of incorporation, which Rosen claims correspond to Mithun's four types of incorporation (295-6).

Baker 1988 adopts GB and deals thoroughly with incorporation. In this book the incorporation of noun, verb, preposition, and passive are proposed and it is claimed that '... "incorporation" is the syntactic movement of an x^0 category to adjoin to its x^0 governor' (229), hence incorporation is treated as an instance of Move-Alpha applying between D-structure and S-structure. In other words, according to Baker, since the construction before incorporation and its incorporated counterpart are thematic paraphrases of each other, they share the same D-structure (which is the structure underlying the nonincorporated construction) and Move-Alpha relates the two (49, 82-3).

Spencer 1995 discusses incorporation in Chukchi. In that article different kinds of incorporation in this language are introduced and it is shown that the syntactic analysis of incorporation is entirely inadmissible, since contrary to the prediction and claim of the syntactic analysis by Baker 1988, in which incorporation is treated as a result of head-to-head movement rule, the incorporation of adjuncts (455) as well as nominal modifiers (477), or more generally the dependents of heads to heads, can be found in Chukchi (459, 482). Spencer eventually concludes that the Chukchi facts are compatible with a lexical analysis similar to that in Rosen 1989, both empirically and conceptually (440, 482-7).

This overview clearly shows that although the Kroeber-Sapir debate on the existence of incorporation has now been resolved in favor of Sapir, their disagreement on the syntactic or morphological nature of incorporation remains unresolved in the literature.

2.2 Persian compound verbs

Persian Compound Verbs have been studied by a number of non-Iranian and Iranian grammarians and linguists. Among them the contributions of the following scholars are noteworthy: Jones (1828:88-92), Forbes (1876:70-1), Platts & Ranking (1911:104-13), Phillott (1919:274-80), Lambton (1984 [1953]:85-93), Khayyampur (1968:66), Bateni (1969:78-80), Sadeghi (1970:791-801, 1993), Moyne (1970:43-83), Rubinchik (1971:78-83), Sharifi 1975, Sheik & Sharifi 1975, Khanlari (1976:176-8, 1986:120-75), Soheili-Isfahani (1976:110-38), Sheintuch 1976, Tabaian 1979, Windfuhr (1979:113-28), Bashiri (1981:139-54), Barjasteh 1983, Samiian (1983:252-66), Mohammad & Karimi 1992, Meshkatod-

dini (1994:158-63), and Ghomeshi (1996: 253-84). The common point of these studies is that they disregard noun incorporation as a process of compound-verb formation altogether. What they recognize and describe is a number of verb-formation processes which will be introduced below.

This introduction is based on Lambton (1953 [1984]:85-93), who has provided a highly revealing taxonomy. In section 1, Lambton observes: 'Compound verbs are formed by a simple verb combined with a noun, adjective, adverb, or prepositional phrase' (85). She then lists the following simple verbs that may be used freely and independently and that commonly participate in compound-verb formation: *kardan* 'to do, make', *dāštan* 'to have, possess', *dādan* 'to give', *zadan* 'to strike', *šodan* 'to become', *xordan* 'to eat', *āmadan* 'to come', *kešidan* 'to pull, draw', *oftādan* 'to fall', *gereftan* 'to take', etc. Her taxonomy is as follows: (a) compound verbs formed by a simple verb and a noun, e.g., *guš kardan* 'to listen' (lit. 'ear-do'), *guš dādan* 'to listen' (lit. 'ear-give"), *gardeš kardan* 'to go for a walk' (lit. 'stroll-do'), *čāne zadan* 'to bargain (over a price)' (lit. 'chin-strike'), *ātaš zadan* 'to set fire to' (lit. 'fire-strike'), *ātaš gereftan* 'to catch fire' (lit. 'fire-take'), *košti gereftan* 'to wrestle' (lit. 'wrestling-take'), *sowgand xordan* 'to swear, take an oath' (lit. 'oath-take'), *zamin xordan* 'to fall down' (lit. 'ground-eat'), *ranj kešidan* 'to suffer, take trouble' (lit. 'suffering-pull'); (b) compound verbs formed by a simple verb and an adjective, e.g., *bāz kardan* 'to open' (lit. 'open-do'), *juš āmadan* 'to boil' (lit. 'boiling-come'), *dur oftādan* 'to be separated' (lit. 'far-fall'), *boland kardan* 'to raise, lift, to steal (colloq.)' (lit. 'lifting-do'); (c) compound verbs formed by a simple verb and a preposition or adverb equivalent, e.g., with *bāz* 'again, back' in *bāz āmadan* 'to come again' *bāz dāštan* 'to restrain, intern, detain', with *bar* 'on, up, off' in *bar āmadan* 'to be accomplished', 'to rise, swell', *bar āvardan* 'to fulfill, accomplish, estimate' (*āvardan* literally means 'to bring') *bar andāxtan* 'to overthrow' (*andāxtan* literally means 'to drop'), with *piš* 'before, forward' in *piš āmadan* 'to occur, happen', *piš kešidan* 'to bring forward', *piš bordan* 'to win, gain the upper hand' (*bordan* literally means 'to take'); (d) compound verbs formed by a simple verb and a prepositional phrase, e.g., *be Jā āvardan* 'to perform, accomplish' (lit. 'to-place-bring'), *az dast dādan* 'to lose' (lit. 'from-hand-give'), *dar miyān nahādan* 'to lay before (someone, something), discuss' (lit. 'in-middle-lay'). In section 2, Lambton remarks, 'Compound verbs [in Persian] are also formed by a simple verb combined with an Arabic participle, noun or adjective' (89). She then provides the following classification: (a) with an Arabic noun, e.g., *fekr kardan* 'to think' (lit. 'thought-do'), *harakat kardan* 'to set out, start' (lit. 'movement-do'), *motāle ʔe kardan* 'to study, read' (lit. 'study-do'), *qārat kardan* 'to plunder' (lit. 'plunder-do'), *ersāl dāštan* 'to send' (lit. 'dispatch-have'), *jor ʔat dāštan* 'to dare' (lit. 'courage-have'), *harf zadan* 'to talk' (lit. 'talk-strike'), *sedā zadan* 'to call' (lit. 'voice/call-strike'); (b) with an Arabic participle, e.g., *maqlub kardan* 'to defeat' (lit. 'defeated-do'), *motehayyer kardan* 'to surprise, astonish' (lit. 'astonished-do'); (c) with an Arabic adjective, e.g., *mariz šodan* 'to be, become ill' (lit. 'ill-become'), *savār šodan* 'to take on board, to put on a horse' (lit. 'on board-become'); (d) with an Arabic noun combined with a preposition, e.g., *be etmām resāndan* 'to finish, bring to an end' (lit. 'to-end-carry'), *be xāter āvardan* 'to bring to mind, recall' (lit. 'to-mind-bring').

With this background we are in a position to evaluate a number of observations made by the aforementioned grammarians and linguists with respect to Persian compound verbs.

An insightful observation reported in Platts & Ranking 1911 is the question of the (in)transitivity of the resulting compound verbs (107-13). To recapitulate briefly, a compound verb is transitive if (a) a simple transitive verb is annexed to a predicative adjective, an imperfect participle, an Arabic verbal adjective, or a passive participle (Persian or Arabic), e.g., *talx kardan* 'to make or render bitter, to embitter' (see also the relevant examples under section 2 (b) and (c) in the paragraph preceding the above paragraph), or (b) when a simple transitive verb is combined with the nomen actionis of a transitive (Arabic) verb, e.g., *motāle?e kardan* 'to study', or with a Persian abstract (verbal) noun derived from a simple transitive verb, e.g., *baxš kardan* 'to divide' < *baxšīdan*. A compound is intransitive if (a) a transitive verb is combined (1) with an Arabic verbal noun derived from an intransitive or a reflexive verb, e.g., *sa?y kardan* 'to exert oneself, to endeavour, to strive', in which *sa?y* from Arabic is intransitive; (2) with a simple substantive (Persian or Arabic), e.g., *šādmāni kardan* 'to rejoice', which contains a Persian substantive; or (b) an intransitive verb is combined with a noun (substantive, adjective, verbal noun, verbal adjective, participle), e.g., *talx šodan* 'to become bitter'.

On the theoretical plane, compound verbs in Persian have been treated variously. Tabaian 1979 adopted a syntactic-semantic approach based on Chafe 1970 and argued that the distinction between simple and compound verbs is unnecessary in Persian and cannot be justified on either semantic or syntactic grounds (208). He ruled out a combination of what Lambton called a simple verb and a preposition or adverb equivalent (see section 1, part (c) in my summary of Lambton) as compound verbs, arguing, 'since none of these prefixes [i.e., preposition or adverb equivalents] occurs as a free morpheme in other contexts in this language, it is no longer possible to distinguish these verbs from simple verbs ...' (196). This generalization is too strong because although some of these nonverbal elements are used only in compounds, e.g., *vā dāštan* 'to oblige' (also recognized and remarked on by Lambton 1953:87), a number of them could be used freely, e.g., *piš* in *piš āmadan* 'to happen' (lit. 'forward-come') used by both Lambton and Tabaian. He also excluded from the set of compound verbs items which he characterized as '... nothing more than a juxtaposition of an object noun phrase and a simple verb', e.g., *dars xāndan* 'to study' (lit. 'lesson-read') (Tabaian 1979:198). This conclusion is untenable, and these items will be dealt with in my treatment of compound verbs in section 3. In regard to compound verbs in which a nonverbal element is combined with the auxiliaries *kardan* 'to make', *šodan* 'to get', *budan* 'to be', and *dāštan* 'to have', e.g., *bidār kardan* 'to wake someone' (lit. 'awake-make'), *bidār budan* 'to be awake', *bidār šodan* 'to wake up', and *dust dāštan* 'to like, to love', Tabaian has claimed that in deep structure only the nonverbal element specified with the syntactic/semantic feature [action], [process], [state], or [benefactive] appears: 'A nonverbal action verb is realized by the auxiliary *kardan*, a process verb with *šodan*, a state verb with *budan*, and a benefac-

tive with *dāštan*. Since the insertion of the auxiliary is unambiguously predictable from the feature matrix of the verbs [i.e., nonverbal element] it is not necessary to postulate the auxiliaries in the deep structures' (Tabaian 1979:208). The exclusion of auxiliaries from deep structures explains Tabaian's claim quoted above to the effect that the distinction between simple and compound verbs is unnecessary. This conclusion had been previously arrived at by Sharifi (1975:461, 466, 467), who also adopted Chafe 1970 as the theoretical framework. However, Sharifi included in his analysis items such as *zamin xordan* 'to fall down' (lit. 'ground-eat'), *qosse xordan* 'to feel sorrowful' (lit. 'grief-eat'), *jiq kešidan* 'to shout' (lit. 'shout-pull'), *sigār kešidan* 'to smoke a cigarette', claimed by Tabaian to be not compounds, but mere juxtapositions of an object NP and a simple verb. He observed: '... the basic meaning of the simple verb is present in all of the compound verbs' (463), and added: '... to native speakers ... [in the first two examples immediately above] the notion of "consumption and absorption" and ... [in the latter two] the idea of "pulling and drawing" is present' (463). Since compound-verb formation for Tabaian and Sharifi is a surface and not a deep-structure phenomenon, they considered it 'syntactic' in nature (Sharifi 1975: 460).

Chapter 3 of Bashiri 1981 is devoted to 'the verb phrase', and in a section of that chapter (126-54), 'the semantic structure of the verb phrase' is discussed. A distinction is made first between 'absolute verbs' and 'modal verbs' and, second, the characteristics of a selected number of them are explored. Absolute verbs are defined '... as verbs that are not susceptible to modification' (127). They '... have a decided semantic core' (128). Modal verbs are defined '... as those Verbs which point to the modes of existence, action or change in a person or an object. As such, these Verbs are fluid and are manipulated by the content of their modifying Noun' (127). Generally speaking, this distinction corresponds to that depicted by traditional grammarians between those simple verbs that may be used freely and independently and the compound verbs in whose formation these simple verbs participate (see Lambton's characterization sketched above). In a subsection on 'Absolute Verbs' *hastan* 'to exist', *raftan* 'to go', *āmadan* 'to come', *kardan* 'to perform an act', *zadan* 'to strike, to hit, to punish', *dādan* 'to give', *šodan* 'to become', *xordan* 'to strike, [to eat]' 'are separately mentioned and described' (128-38), and in a subsection on 'Modal Verbs' the participation of these verbs in forming compounds is described and exemplified (139-54). To recapitulate briefly, *kardan* as an absolute verb, for instance, is characterized as '... a Causative form denoting the performance of an act' (133). For this characterization the following example, among other similar ones, is provided (133).

(1) ali   ān   kār-rā   kard-Ø
      Ali   that work-DO   did-he
      'Ali did the work.'

According to Bashiri, 'As a modal verb *kardan* means the performance of an act by an agent in such a way that the act is transferred to a person or object other than the Agent. *kardan*, in other words, is a Causative Verb capable of generating a long list of other Causative Verbs' (144-5). This specification is illustrated in a number of examples, two of which are cited below (144-5):

(2) bačče ān šāxe-rā az deraxt jodā kard-Ø
    child that branch-DO from tree separate did-he/she
    'The child broke off that branch from the tree.'

(3) rezā šabnam-rā tanbih kard-Ø
    Reza Shabnam-DO punishment did-he
    'Reza punished Shabnam.'

Bashiri's identical treatment of (absolute or modal) *kardan* as a causative verb is imprecise (cf. the noncausative sentences in (1) and (3) above). Similarly, for *zadan* it is said 'As an Absolute Verb, *zadan* means to strike a person or object for a reason' (134), as exemplified in (4) below:

(4) ali rezā-rā zad-Ø
    Ali Reza-DO hit-he
    'Ali hit Reza.'

About *zadan* as a Modal Verb we read, 'As an action modifier, *zad-an* is quite similar to, and in some senses identical with *kard-an* as a Modal Verb' (147). The following items are presented as illustrative examples:

(5) otu zadan otu kardan 'to iron'
    telefon zadan telefon kardan 'to telephone'
    šāne zadan šāne kardan 'to comb'
    rang zadan rang kardan 'to paint'
    tur zadan tur kardan 'to capture, to make victim'

Bashiri observes, 'In other instances, however, the two verbs reveal significant differences' and provides the following items (147):

(6) kaf zadan 'to clap' kaf kardan 'to produce foam'
    dast zadan 'to clap, to touch' dast kardan 'to wear on the hand'
    bād zadan 'to fan' bād kardan 'to inflate'

He adds, '*zadan* usually indicates a repeated action' and presents the following examples (among others) to substantiate the claim (147):

(7) čort zadan 'to doze'
    buq zadan 'to play the horn (car)'
    sedā zadan 'to call (someone's name)'
    telefon zadan 'to telephone'
    telegrāf zadan 'to telegraph'
    kaf zadan 'to clap'
    ney zadan 'to play the flute'
    piāno zadan 'to play the piano'
    dar zadan 'to knock on the door'
    qadam zadan 'to stroll'
    par zadan 'to flutter'
    ātaš zadan 'to set on fire'

Another insightful observation made by Bashiri is contained in the following quotation (148):

(8)

Semantic interpretations of the same phenomena can vary from speaker to speaker. Some speakers, for instance, identify the repetitive nature of *zad-an* with the concept of a 'prolonged' or 'drawn out' action. They then replace *zad-an* with *kešid-an* 'to pull, to drag'. As a result of these different deep structure interpretations, the surface structure receives two different versions of the same idea.

A number of the examples cited in this respect are listed in (9).

(9)	jār	zad-an	jār	kešid-an	'to call (someone's name)
	dād	zad-an	dād	kešid-an	'to shout'
	sar	zad-an	sar	kešid-an	'to pay a short visit'
	nafas	zad-an	nafas	kešid-an	'to breathe'
	dār	zad-an	dār	kešid-an	'to string up on the gallow'

Lastly, Bashiri recognizes another set of *zadan* verbs, suggesting, 'Besides these *zadan* verbs which are primarily concerned with the Agent, hardly affecting the ability of the Experiencer to bring about substantial change in the Noun Phrase, there is another set of *zadan* verbs that does the latter' (149), e.g.,:

(10)	gul	zad-an	'to deceive'
	zaxm	zad-an	'to wound'
	kotak	zad-an	'to punish'
	šāne	zad-an	'to comb'
	vāks	zad-an	'to polish'
	mošt	zad-an	'to punch'
	sili	zad-an	'to slap'
	rang	zad-an	'to paint'
	pā	zad-an	'to pedal'
	ham	zad-an	'to stir'

If I understand this last point correctly, it suggests that in the verbs listed in (10) an object NP (direct or otherwise) can normally be established (cf. *pā zad-an* as an exception).

Although Bashiri's observations are illuminating, they are sporadic.

Barjasteh's 1983 Ph. D. dissertation is wholly devoted to compound verbs in Persian. He considers compound-verb formation in this language as a productive lexical phenomenon generated by a number of operations in the lexicon (326-86). Barjasteh makes a distinction between nonseparable and separable compound verbs. He classifies compound verbs such as *taqāzā kardan* 'to request' and *hoqqe zadan* 'to cheat' as separable compounds because we can have constructions such as (11) and (12) below, in which the nominal parts of the above compounds have taken 'the accusative case marker *-rā*' and hence 'function syntactically as the direct objects of their clauses' (258).

(11)	hasan	az	mā	[[in	taqāzā]-rā	kard-Ø]
	Hassan	from	we	this	request-DO	did-he
	'Hassan made this request to us.'					

(12) Ǎavād   be   mā   [[in   hoqqe]-rā   zad-Ø]
     Ǎavād   to   we   this   cheating-DO   struck-he
     'Ǎavād played this trick on us.'

On that basis, compounds such as *nafas zadan* 'to breathe' and *qadam zadan* 'to walk' are nonseparable because items (13) and (14) are ungrammatical (258).

(13) * u   [[in   nafas]-rā   zad-Ø]
       he   this   breath-DO   struck-he

(14) * ali   [[in   qadam]-rā   zad-Ø]
       Ali   this   step-DO   struck-he

It may be noted that the separation of the nominal and verbal parts in the class of separable compounds (e.g., (11) and (12)) is an operation which is the inverse of Noun Incorporation.

Barjasteh also proposes classifications within specific categories of compound verbs, e.g., within compounds in which *zad-an* 'to strike' is the 'verbalizer' (354). In his words, 'Based on the semantic character of the nouns that constitute the initial element of these constructions, the compounds of this category can be classified into the following sub-groups ...' (354). In the first subgroup the nominal part involves '... the repetition of several motions' (355), as exemplified in (15).

(15) pā   zadan   'to pedal'   [(5-134), (5-135)]
     pedaling   strike-inf
     par   zad- an   'to fly (as for birds)'
     wing   strike-inf
     lis   zad- an   'to lick'
     licking   strike-inf
     telefon   zad- an   'to telephone'
     telephone   strike-inf
     harf   zad- an   'to speak'
     speech   strike-inf

In the second subgroup '... the nominal element ... semantically indicates either "a prolonged clamor" or refers to an object which can produce such a sound' (357), e.g.,:

(16) sut   zad-an   'to whistle'   [(5-140)]
     whistling   strike-inf
     Ǎiq   zad-an   'to scream'
     screaming   strike-inf
     buq   zad-an   'to honk'
     honk   strike-inf
     šeypur   zad-an   'to bugle'
     bugle   strike-inf
     flut   zad-an   'to flute'
     flute   strike-inf

In the third subgroup '... the nominal element ... designates any particular kind of paste or liquid applicable to a surface either for cosmetic purposes or lubrication' (358), e.g.,:

(17)	vāks	zad-an	'to polish'	[(5-142)]
	shoe-polish	strike-inf		
	sorxāb	zad-an	'to rouge'	
	rouge	strike-inf		
	mānikur	zad-an	'to manicure'	
	manicure	strike-inf		
	rang	zad-an	'to paint'	
	paint	strike-inf		
	rowqan	zad-an	'to oil'	
	oil	strike-inf		

In the final subclass, it is claimed, '... the nominal elements ... semantically indicate a notion of "artifice" or "imposture"' (359), e.g.,:

(18)	hoqqe	zad-an	'to trick'	[(5-144)]
	trick	strike-inf		
	kalak	zad-an	'to play a trick'	
	ruse	strike-inf		
	gul	zad-an	'to deceive'	
	deception	strike-inf		
	nāro	zad-an	'to double cross'	
	double- crossing	strike-inf		
	hile	zad-an	'to beguile	
	guile	strike-inf		

Barjasteh's classification reported above is insupportable, as there are compound verbs formed with *zadan*, a number of them listed below, which do not fit into any of the aforementioned subgroups.

(19)	zānu	zadan	'to kneel down'	(Lit. 'knee-strike')
	hads	zadan	'to guess'	(Lit. 'guess-strike')
	fāks	zadan	'to fax'	(Lit. 'fax-strike')
	Javāne	zadan	'to bud'	(Lit. 'shoot-strike')
	češmak	zadan	'to wink'	(Lit. 'wink-strike')

The same inadequacy in classification holds for the category of compound verbs formed with 'the auxiliary verb' *gereft-an* 'to take; to hold' (362-7) and with 'the verbal auxiliary' *kešid-an* 'to pull' (367-74).

Mohammad & Karimi 1992 deals with 'Complex Verbs in Persian' within a GB framework. They claim that '... the verbal element of Persian complex predicates are "light" verbs ...' (201). In this analysis the verbal element is assumed to be 'semantically empty', with '... the nominal element carrying the semantic burden ...' (201). They furthermore add, 'A crucial property of the light verb is that it does not bear a thematic relation to its nominal element', as witnessed by the observation that '... only the NP bearing a thematic relation to the verb can appear in

an EZAFE [i.e., genitive] construction, a construction that consists of a head noun and its thematic arguments' (202). In example (20 a) below, *dād* is a 'heavy verb', hence it theta-marks *ketāb* and thus the latter can follow the nominalized verb as shown in (20 b). In (21 a), however, *dād* is a 'light verb', hence no thematic relationship holds between this verb and the nominal *extesās*. Consequently, the nominalized form in (21b) is rightly predicted to be ungrammatical (202).

(20) a.   kimiā   be   rāmin   ketāb   dād-Ø   [(21)]
           kimea   to   Ramin   book   gave-he
           'Kimea gave (a) book to Ramin.'

      b.   dādan-e   ketāb   be   rāmin   dorost   na-bud-Ø
           giving-EZ   book   to   Ramin   right   NEG-was-it
           'Giving (a) book to Ramin was not right.'

(21) a.   kimiā   in   otāq-ro² be mehmun extesās   dad-Ø [(23)]
           Kimea this room-rā to guest   allocation gave-he
           'kimea allocated this room to the guest.'

      b.   * dādan-e   extesās   otāq-ro be mehmun   dorost
             giving-EZ allocation room-rā to   guest   right
             na-bud-Ø
             NEG-was-it

However, Mohammad & Karimi have disregarded the fact that the nominalized form (20 c) is equally as grammatical as (21 c). In both of them the nominal and the verbal parts jointly and wholly function as the head of the EZAFE construction.

(20) c.   ketāb   dādan-e   kimiā   be   rāmin
           book   giving-EZ kimea   to   Ramin
           Lit. 'Kimea's book-giving to Ramin.'

(21) c.   extesās   dādan-e   in   otāq   be   mehmun
           allocation   giving-EZ this room   to   guest
           (tavassot-e   kimiā)
           by-EZ   Kimea
           Lit. 'Allocation of this room to guest (by Kimea).'

As a matter of fact I believe that, contrary to Mohammad & Karimi's claim, (20 b) is not the nominalized form of (20 a), but that of (22), in which *ketāb* is obviously the direct object of the simple verb *dād*. The nominalized form of (20 a) is (20 c).

(22) kimiā   ketāb-rā   be   rāmin   dād-Ø
      Kimea   book-DO   to   Ramin   gave-he
      'Kimea gave the book to Ramin.'

Mohammad & Karimi also claim that sentence (21 a) contains two accusative cases, one structural and one inherent (206). They propose the configuration in (23) to represent the internal constituency of the predicate. In this configuration *in otāq-ro* occupies the NP position under SPEC and is assigned inherent accusative

case by AGRO, whereas *extesās* appears in the nonspecific NP position and receives structural case from the verb (206). The postulation of two accusative cases for Persian is counter-intuitive and empirically unjustified.

3.   A new proposal for the treatment of Persian compound verbs

Rastorgueva 1966 (translated into Persian by Shadan in 1968) has reported that the number of verbs in Middle Persian (224-651 A.D.) is not many and has added that this scarcity is compensated by the noun plus verb combination and that in the majority of the cases *kartan* 'do, make' constitutes the verbal part in the combination, e.g., *zēn kartan* 'to saddle', *rošnīh kartan* 'to light', *āzmāyišn kartan* 'to test' (Shadan 1968:129). According to Sadeghi 1993 the number of simple verbs formed on the basis of Arabic borrowings into Persian is scarce (e.g., *bal ʔīdan* 'to swallow; to devour' from Arabic *balʔ* (plus the past marker suffix *-id* and the infinitive suffix *-an*), *raqsidan* 'to dance' from Arabic *raqs*, *fahmidan* 'to understand' from Arabic *fahm*) (p. 238, 242). This suggests that compound-verb formation must have been the dominant tendency in Early New Persian. The existence of a great number of compound verbs in Persian formed based on Arabic participles, nouns, or adjectives borrowed into Persian and combined with Persian verbs (see my summary of Lambton in section 2.2) further substantiates this tendency. Furthermore, all new borrowings from western languages when used as verbs are always compound (e.g., *fāks kardan/zadan* 'to fax', *telefon kardan/zadan* 'to tele-

(23)   AGROP   [(32)]
                               |
                            AGRO'

               VP   AGRO

        SPEC   V'1

         NP
      [+Specific]   PP   V'2
    [inherent Case]
                           NP   V
                        [-specific]
                       [structural Case]
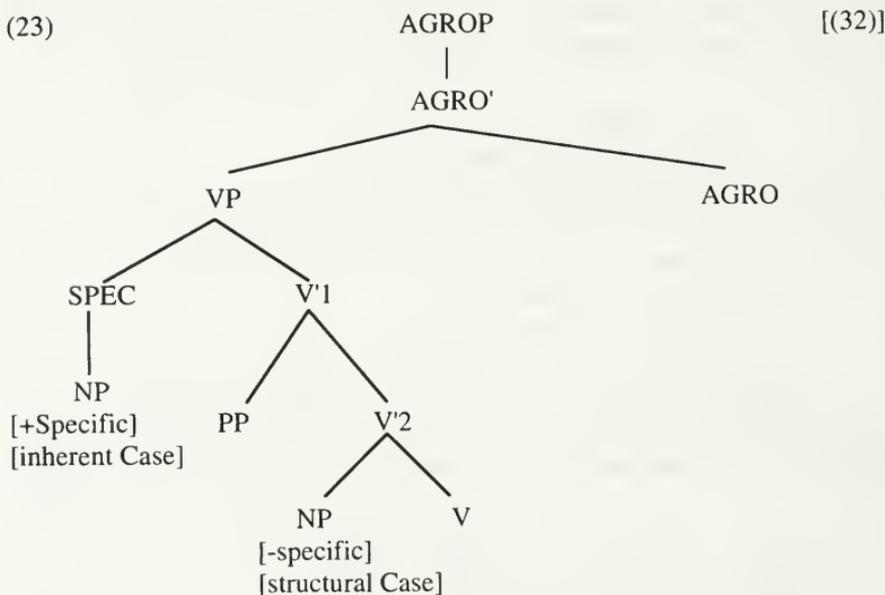
phone', *montāž kardan* 'to montage', *sigār kešidan* 'to smoke (cigarette)', *tāyp kardan* 'to type', *test kardan* 'to test', *māsāž dādan* 'to massage'). Also a number of existing simple verbs have compound counterparts which are derived from the simple verb itself (e.g., *jangidan — jang kardan* 'to fight', *āludan — ālude kardan* 'to contaminate', *kušidan — kušeš kardan* 'to try', *geristan — gerye kardan*

'to cry', *qaltidan — qalt zadan* 'to roll', *fariftan — farib dādan* 'to cheat'). In this set, the simple verb sounds formal and literary, and its compound counterpart less so. Finally, as reported in Sadeghi (1993:241, fn.4) the maximum number of simple verbs in today's spoken and written Persian is 115 verbs. These observations suggest that compound-verb formation is highly productive in Persian today.

In this article, I intend to show that there are two major types of compound-verb formation in Persian: 'Combination' and 'Incorporation'. These will be taken up separately.

3. 1 Combination

3.1.1   Adjective + auxiliary

The auxiliaries which participate in this combination are the three listed in (a)-(c) below:

(a) The stative auxiliary *budan* 'to be', e.g., *delxor budan* 'to be annoyed'.

(b) The inchoative auxiliary *šodan* 'to become', e.g., *delxor šodan* 'to become annoyed'.

(c) The causative auxiliary *kardan* 'to make', e.g., *delxor kardan* 'to annoy'.

The compound verbs formed via (a)-(c) above constitute an open set.

3.1.2   Noun + verb

The major verbs which participate in the formation of these compounds are listed and exemplified in (a)-(g) below. Though all of the verbs when used as simple verbs are transitive, the resulting compounds may turn out to be transitive or intransitive. In this respect Platts & Ranking's observation reported earlier (see section 2.2) is highly illuminating.

(a) *kardan* 'to do'

My corpus contains 503 compound verbs formed in this way. Some of them are transitive and some intransitive. Items in (24) provide a representative sample.

(24)

INFINITIVE FORM		GLOSS	LITERAL MEANING	TRANSITIVITY
tahdid	kardan	'to threaten'	'threat-do'	+
tab	kardan	'to be attacked by fever'	'fever-do'	-
harāǰ	kardan	'to put on sale'	'sale-do'	+
ǰāru	kardan	'to sweep'	'broom-do'	+
nāle	kardan	'to groan'	'groan-do'	-
šāne	kardan	'to comb'	'comb-do'	+
post	kardan	'to mail'	'mailing-do'	+
rezerv	kardan	'to book; to reserve'	'reservation-do'	+
pasandāz	kardan	'to save (money)'	'saving-do'	+
sorfe	kardan	'to cough'	'coughing-do'	-
hammām	Kardan	'to take a bath'	'bath-do'	-
soxanrāni	Kardan	'to give a talk'	'talk-do'	-
salām	kardan	'to say hello'	'hello-do'	-

qaš	kardan	'to faint'	'fainting-do'	-
bāzi	kardan	'to play'	'play-do'	-
aziyat	kardan	'to annoy'	'annoyance-do'	+
Ĵang	kardan	'to fight'	'fight-do'	-
āqāz	kardan	'to begin'	'beginning-do'	+
zendegi	kardan	'to live'	'living-do'	-
tamāšā	kardan	'to watch'	'watching-do'	+

(b) *zadan* 'to strike, beat'

In my corpus, I have 235 compound verbs in which *zadan* serves as the verbal element. The verbs listed in (7), (10), (15), (16), (17), (18), and (19) provide representative examples. Some of these verbs are intransitive and some transitive. For example, from among the items listed in (7), *sedā zadan* 'to call (someone's name)' (lit. 'voice-strike'), and *ātaš zadan* 'to set on fire' (lit. 'fire-strike') are transitive, and the rest intransitive (in Persian).

(c) *dādan* 'to give'

The compound verbs which constitute my data in this set comprise 205 verbs. Most of them are transitive and some intransitive. Illustrative examples are provided below:

(25)

INFINITIVE FORM		GLOSS	LITERAL MEANING	TRANSITIVITY
anĴām	dādan	'to fulfill'	'fulfillment-give'	+
talāq	dādan	'to divorce'	'divorce-give'	+
pas	dādan	'to return'	'back-give'	+
pās	dādan	'to pass(the ball)'	'pass-give'	+
nešān	dādan	'to show'	'showing-give'	+
dast	dādan	'to shake hands'	'hand-give'	-
rox	dādan	'to occur'	'face-give'	-
salām	dādan	'to salute'	'hello-give'	-
ahammiyyat	dādan	'to consider important'	'importance-give'	-
emtehān	dādan	'to take an exam'	'exam-give'	-
šekast	dādan	'to defeat'	'defeat-give'	+
farib	dādan	'to cheat'	'cheating-give'	+
yād	dādan	'to teach'	'remembrance-give'	+
šarh	dādan	'to describe'	'description-give'	+
tul	dādan	'to protract'	'duration-give'	+
mazze	dādan	'to be pleasant'	'taste-give'	-
sedā	dādan	'to make noise'	'noise-give'	-
ādat	dādan	'to accustom'	'habit-give'	+
neĴāt	dādan	'to save'	'deliverance-give'	+
māsāž	dādan	'to massage'	'massage-give'	+

(d) *gereftan* 'to take'

My data on compound verbs with *gereftan* as its verbal element consists of 114 items. Some are transitive and some intransitive. The following list presents sample examples.

(26)

INFINITIVE FORM		GLOSS	LITERAL MEANING	TRANSITIVITY
duš	gereftan	'to take a shower'	'shower-take'	-
sebqat	gereftan	'to take precedence'	'precedence-take'	-
anǰām	gereftan	'to be accomplished'	'accomplishment-take'	-
tahvil	gereftan	'to take delivery of'	'delivery-take'	+
bu	gereftan	'to turn fetid'	'smell-take'	-
yād	gereftan	'to learn'	'learning-take'	+
ātaš	gereftan	'to catch fire'	'fire-take'	-
gowāh	gereftan	'to call to witness'	'witness-take'	+
dard	gereftan	'to feel pain'	'pain-take'	-
pas	gereftan	'to regain'	'back-take'	+

(e) *kešīdan* 'to draw'

My corpus contains 85 compound verbs with this verbal element. Most of them are intransitive. A subset of them is reported in (27) below.

(27)

INFINITIVE FORM		GLOSS	LITERAL MEANING	TRANSITIVITY
ranǰ	kešīdan	'to suffer vexation'	'suffering-draw'	-
entezār	kešīdan	'to await anxiously'	'expectation-draw'	-
faryād	kešīdan	'to shout'	'shout-draw'	-
enteqām	kešīdan	'to revenge'	'revenge-draw'	-
zabāne	kešīdan	'to flame'	'flame-draw'	-
xeǰālat	kešīdan	'to feel ashamed'	'shame-draw'	-
sut	kešīdan	'to whistle'	'whistle-draw'	-
sigār	kešīdan	'to smoke a cigarette'	'cigarette-draw'	-
dam	kešīdan	'(of tea) to draw'	'steam-draw'	-
tul	kešīdan	'to take time'	'length-draw'	-
nafas	kešīdan	'to breathe'	'breath-draw'	-
āb	kešīdan	'to rinse'	'water-draw'	+
utu	kešīdan	'to iron'	'flatiron-draw'	+
ǰāru	kešīdan	'to sweep'	'broom-draw'	+
derāz[3]	kešīdan	'to lie down'	'long-draw'	-

(f) *dāštan* 'to have'

My corpus of the compounds formed this way contains 83 verbs. Some of them are intransitive and some transitive. Representative examples are provided in (28) below.

(28)

INFINITIVE FORM		GLOSS	LITERAL MEANING	TRANSITIVITY
dust	dāštan	'to like'	'friend-have'	+
dast	dāštan	'to be involved'	'hand-have'	-
taqdim	dāštan	'to present'	'presentation-have'	+
ettelāʔ	dāštan	'to be informed'	'information-have'	-
qabul	dāštan	'to admit'	'acceptance-have'	+
ǰaryān	dāštan	'to flow'	'flowing-have'	-

gerāmi[4]	dāštan	'to hold dear'	'dear-have'	+
voǰud	dāštan	'to exist'	'existence-have'	-
masʔalat	dāštan	'to beg (the Almighty)'	'begging-have'	+
edāme	dāštan	'to continue'	'continuation-have'	-

(g) *xordan* 'to eat'

In my corpus I have 74 compound verbs which belong to this set. All of the compound verbs formed with this verb are intransitive. Selected examples are given in (29) below.

(29)

INFINITIVE FORM		GLOSS	LITERAL MEANING
qosse	xordan	'to grieve'	'grief-eat'
sarmā	xordan	'to catch cold'	'cold-eat'
kotak	xordan	'to be beaten'	'beating-eat'
pič	xordan	'to be twisted'	'twist-eat'
sowgand	xordan	'to swear	'oath-eat'
havā	xordan	'to refresh in the open air'	'air-eat'
qute	xordan	'to suffer immersion; to float'	'floating-eat'
farib	xordan	'to be cheated'	'cheating-eat'
bād	xordan	'to be interrupted'	'wind-eat'
tā	xordan	'to be folded'	'fold-eat'

My corpus of the compounds formed with simple verbs in (a)-(g), though not exhaustive, consists of 1299 verbs.

3.1.3   Prepositional phrase + verb

In this set a number of simple transitive and intransitive verbs participate and the (in)transitivity of the compound is predictable on the basis of the (in)transitivity of the simple verb involved. It is noteworthy that all these compounds in my corpus, which amounts to 152 verbs, are understood metaphorically. A few sample examples are provided in (30) below:

(30)

INFINITIVE FORM		GLOSS	LITERAL MEANING
be donyā	āmadan	'to be born'	'to-world-come'
dar miyān	nahādan	'to discuss'	'in-middle-lay'
az beyn	raftan	'to vanish'	'from-between-go'
az beyn	bordan	'to destroy'	'from-between-take'
bar bād	dādan	'to waste'	'on-wind-give'
be xun	kešidan	'to kill'	'to-blood-draw'
be tul	anǰāmidan	'to last'	'to-length-end'
be arz	resānidan	'to have the honor to inform'	'to-presentation-reach'
be yād	dāštan	'to remember'	'to-remembrance-have'
az sar	gereftan	'to renew'	'from-head-take'

3.1.4   Adverb + verb

My corpus contains 114 compounds formed this way. The (in)transitivity of the resulting compound depends on the (in)transitivity of the simple verb involved. Representative examples are provided in (31) below:

(31)

INFINITIVE FORM		GLOSS	LITERAL MEANING
bar	andāxtan	'to overthrow'	'off-throw'
pas	dādan	'to return'	'back-give'
piš	kešidan	'to bring forward'	'before-draw'
dar	yāftan	'to perceive'	'in-find'
farā	gereftan	'to acquire'	'in-take'
foru	rixtan	'to collapse'	'down(ward)-pour'
vā	zadan	'to reject'	'back-strike'
var	āmadan	'to rise (bread)'	'up-come'
bāz	dāštan	'to restrain'	'back-have'
forud	āmadan	'to land'	'down-come'

3.1.5   Past participle + passive auxiliary

This set of compounds forms passive verbs and the auxiliary involved is *šodan* 'to become'. Any transitive verb that may be passivized belongs to this set. e.g., *košte šodan* 'to be killed' (lit. 'killed-become'), *gofte šodan* 'to be said (lit 'said-become'), *sāxte šodan* 'to be built' (lit. 'built-become'), *ersāl karde šodan* 'to be despatched' (lit. 'despatch-done-become'), *ettelāʔ dāde šodan* 'to be notified' (lit. 'information-given-become'). It is noteworthy that in the last two examples the past participial forms are themselves based on compound verbs. In other words, these are passives of compound verbs.

Before closing this section it should be mentioned that some of the verbs which participate in compound-verb formation have stylistic variants. This possibility adds to the already large stock of compound verbs in use in this language. The interchangeability of *gardidan* with *šodan* (e.g., *ersāl šodan* 'to be despatched' as well as *ersāl gardidan*), *kardan* with *nemudan* (e.g., *saʔy kardan* 'to try' as well as *saʔy nemudan*), *kardan* with *farmudan* (e.g., *motāleʔe kardan* 'to study' as well as *motāleʔe farmudan*) are sample examples.

3.2   Incorporation

3.2.1   Direct object

Persian allows incorporation of a direct object, whereby the direct object loses its grammatical endings (e.g., the postposition -rā, the indefinite marker -i, the plural suffix, the possessive pronominal suffix) and incorporates with the verb to create an intransitive compound verb which is a conceptual whole. Item (32 a) below contains an independent direct object which is incorporated in (32 b).

(32) a.   bačče-hā   qazā-eš-ān-rā   xor-d-and
            child-pl   food-his/her-pl-DO   eat-past-they
            'The children ate their food.'

b.   bačče-hā   qazā   xor-d-and
'The children did food-eating.'

In (33 a) the indirect object has appeared between the direct object and the verb, and in (33 b) the ex-direct object has crossed over the indirect object to incorporate.

(33) a.   mādar   qazā-rā   be   bačče   dād-Ø
mother food-DO   to   child   gave-she
'The mother gave the food to the child.'

b.   mādar   be   bačče   qazā   dād-Ø
Lit. 'The mother food-gave to the child.'

A similar example is provided by the pair in (34). Here, in the matrix clause, the direct object crosses over the oblique object to incorporate.

(34) a.   man faqat in   entezār-rā   az   šomā   dār-am
I   only this expectation-DO from you   have-I
ke   xub   dars   be-xān-id
that well lesson   SUB-read-you
Lit. 'I only have this expectation from you that you should study
hard.'

b.   man faqat az   šomā   entezār dār-am
ke   xub   dars be-xān-id
'I only expect you to study hard.'

In addition to the disappearance in incorporation of the grammatical ending(s) that might be attached to the direct object (cf.(32 a) and (32 b), (33 a) and (33 b), (34 a) and (34 b)) there are a number of other observations which further justify the postulation of incorporation in Persian. Five of them will be reported immediately. Other arguments will be presented later in the article.

The following three observations are due to Barjasteh (1983:324-5), although, as we witnessed in my review of his contributions, he does not recognize incorporation. In examples (35 a)-(37 a), in the first conjunct we have direct objects followed by simple verbs, whereas in the first conjuncts in (35 b)-(37 b), we encounter their incorporated counterparts. This structural difference between (a) and (b) in each pair explains the (im)possibility of gapping, pronominal reference, and nominal ellipsis in these examples respectively. Gapping, i.e., identical verb deletion, is permitted in the second conjunct in (35 a). Its impossibility in (35 b) is due to the fact that incorporation creates a conceptual whole that cannot trigger the deletion of an independent simple verb in the second conjunct.

(35)
a.   man ham qazā-rā   poxt-am va   ham sabzi-rā   [(5-98)(i)]
I   also food-DO cooked-I and also vegetable-DO
'I cooked the food and the vegetable too.'

b.   * man ham [qazā poxt-am] va   ham sabzi-rā   [(5-98)(ii)]
* 'I cooked and the vegetable too.'

Similarly in (36 a), the pronoun *ān* 'it' refers back to the direct object in the first conjunct, but as (36 b) shows, this is impossible when the direct object is incorporated. That is to say, after incorporation the nominal constituent of the compound is non-referential.

(36)

a.   man   dišab   qazā-rā   xor-d-am   va   kami   [(5-99)(i)]
      I   last night   food-DO   eat-past-I   and   some
      az   ān-rā   ham   be   gorbe   dād-am
      of   it-DO   also   to   cat   gave-I
      'Last night I ate the food and gave some of it to the cat.'

b.   * man   dišab   [qazā xor-d-am]   va   kami   az   ān-rā   [(5-99)(ii)]
         ham   be   gorbe dād-am.
      * 'Last night I ate and gave some of it to the cat, too.'

Also in (37 a) the ellipsis of the direct object of the second conjunct based on its identity with the direct object in the first conjunct is allowed. This elliptical process is blocked in (37 b), due to the fact that the incorporated direct object in the first conjunct is 'no longer an autonomous element identical with the underlying direct object of the second clause' (Barjasteh 1983:325).

(37)

a.   ali   māhi-rā   gereft-Ø   va   tuye   houz   gozāšt-Ø   [(5-100)(i)]
      Ali   fish-DO   took-he   and in   pool   put-he
      'Ali caught the fish and put it into the pool.'

b.   * ali   [māhi gereft-Ø]   va   tuye houz   gozāšt-Ø   [(5-100)(ii)]
      * 'Ali fished and put it into the pool.'

The next argument substantiating the postulation of incorporation in Persian is the semantic difference between a nonincorporated construction and its incorporated counterpart. As mentioned above, after incorporation the incorporated noun and the verb constitute a conceptual whole in which the noun is understood generically, whereas in the nonincorporated construction the object is referential. Items (32)-(34) support this observation. Similarly, in item (38 a) below the transfer of poison to Hasan is intended, whereas in (38 b), which is the incorporated counterpart of (38 a), Hasan's being poisoned is meant.

(38) a.   minā   zahr-rā   be   hasan   dād-Ø
            Mina   poison-DO   to   Hasan   gave-she
            'Mina gave the poison to Hasan.'

      b.   minā   be   hasan   zahr   dād-Ø
            'Mina poisoned Hasan.'

The fifth observation supporting incorporation is based on a morphological process in which the output of incorporation serves as the input for another lexical process. For instance, the compound word *qazā xori* 'food-eating', which may appear as a modifier in the head-modifier construction *sālon-e* [*qazā xori*] 'food-eating hall' (lit. 'hall-of food-eating'), is related to the compound verb *qazā xor-*

dan (lit. 'to food-eat'), which is itself the output of incorporation. Similar examples are *čāy xori* 'tea-cup' (lit. 'tea-eating'), *ābmive giri* 'juicer' (lit. 'juice-taking'), *ketāb foruši* 'bookshop' (lit. 'book-selling'), etc., which are related to the incorporated compounds *čāy xordan* (lit. 'to tea-eat), *ābmive gereftan* (lit. 'to juice-take'), *ketāb foruxtan* (lit. 'to book- sell'), respectively.

On the basis of the above observations (and other pieces of evidence to be presented later in the article), I intend to suggest that a structure formed via incorporation and its nonincorporated counterpart constitute two different constructions which are related to two different conceptual contents.

Incorporation of a direct object is a productive process in Persian. As a matter of fact, in this language, any direct object that can be conceived nonreferentially may incorporate.

3.2.2   Prepositional phrase

In Persian some prepositional phrases functioning as adverbs of location may also incorporate. After incorporation the preposition disappears. Examples (39) and (40) below exemplify this possibility.

(39) a.   mā   ruy-e   zamin   nešast-im
          we   on-EZ   ground   sat-we
          'We sat on the ground.'

     b.   mā   zamin   nešast-im.
          Lit. 'We ground-sat.'

(40) a.   bačče   be   zamin   xor-d-Ø
          child   to   ground   eat-past-he/she
          'The child fell to the ground.'

     b.   bačče   zamin   xor-d-Ø
          'The child fell down.'

With respect to item (40), I intend to suggest that the affected sense underlying all instances of *xordan* 'to eat' (real or metaphoric) accounts for its collocation with *zamin*. In other words, a theme running through all instances with the verb *xordan* is that the subject is affected by the outcome of the verb (see *qosse xordan* 'to grieve' (lit. 'grief-eat') in 3.1.2 (g), *qazā xordan* 'to eat' (lit. 'food- eat') in 3.2.1, and *zamin xordan* in (40) above). In the same vein, the nominal compound *zad-o-xord* 'fight' (lit. 'beat-and-eat') clearly isolates and reflects the 'nonaffected and affected' nature of a fight.

Before closing our discussion of incorporation, it is worth mentioning that Barjasteh (1983:327) lists items in (41) below as 'Compound Verbs of Experience'.[5]

(41) xoš   āmad-an   'to like'   [(5-101)]
     liking   came-inf
     bad   āmad- an   'to dislike'
     disliking came- inf

xāb	āmad-an	'to feel sleepy'
sleeping	came-inf	

Barjasteh's treatment of these items is totally unfounded. As a matter of fact these items are not compound verbs at all but full-fledged sentences in which the nominal element is the subject and the obligatory rule of verb-subject agreement in Persian systematically treats these nominals as the subject. Examples in (42) below support this observation.

(42) a. xoš-am   āmad-Ø
         liking-my   came-it
         'I liked it.' (Lit. My liking came.)

     b. xoš-eš   āmad-Ø
         liking-his/her came-it
         'He/she liked it.' (Lit. His/her liking came.)

     c. xoš-et-ān   āmad-Ø
         liking-you-pl   came-it
         'You liked it.' (Lit. your liking came.)

Similarly, the items in (43) below are wrongly assumed by Barjasteh to be compounds (362). They too are full-fledged sentences and my analysis of the items in (41), as supported by examples in (42), fully apply to the items in (43) as well.

(43) | sedā | gereft-an | 'to lose one's voice' | [(5-146)] |
     |------|-----------|----------------------|-----------|
     | voice | took-inf | | |
     | zabān | gereft-an | 'to stammer' | |
     | tongue | took-inf | | |
     | pā | gereft-an | 'to get leg cramps' | |
     | foot | took-inf | | |
     | xoršid | gereft-an | 'to eclipse (solar)' | |
     | sun | took-inf | | |

In fact in these constructions, a compound verb can appear in place of the simple verbs in (41) and (43). Such examples are provided in (44) below.

(44) a. sar-am   dard   gereft-Ø
         head-my   ache   took-it
         'I got a headache.'

     b. howsele-am   sar   raft-Ø
         patience-my   head   went-it
         'I became impatient.' (Lit. My patience overflowed.)

     c. nafas-am   band   āmad-Ø
         breath-my   closure   came-it
         'I was out of breath.' (Lit. My breath stopped.)

Although in the literature subject incorporation has been proposed, specifically in Sapir (1911:266, 280), there is no evidence for assuming that the items in (41), (43), and (44), or similar cases, are instances of such a process in Persian. In my

opinion they are frozen sentences whose verb meanings are metaphorically extended.

3.3   Combination versus incorporation

There are four major differences between the compound verbs formed via incorporation and those formed by combination which (further) substantiate the taxonomy of compound verbs into incorporation and combination sets.

First, in the former, for every incorporated form there is a corresponding nonincorporated counterpart that are thematic paraphrases of each other, i.e., they share the same theta grid and selectional restriction (e.g., (32 a) and (32 b), (33 a) and (33 b), (34 a) and (34 b), whereas in the latter no noncombined counterpart exists.

Second, compound verbs formed through incorporation are systematically intransitive whereas compound verbs formed via combination may turn out to be transitive or intransitive depending on a number of factors hinted at previously. In other words, incorporation is a systematic intransitivization process in Persian.

(45)

N+KARDAN	N+GEREFTAN	N+DĀDAN	N+ZADAN	N+XORDAN
qarz kardan 'borrow'	qarz gereftan 'borrow'	qarz dādan 'lend'		
emtehān kardan 'examine'	emtehān gereftan 'give an exam'	emtehān dādan 'take an exam'		
		hers dādan 'make angry'	hers zadan 'be greedy'	hers xordan 'get angry'
		gul dādan 'deceive'	gul zadan 'deceive'	gul xordan 'be deceived'
		farib dādan 'cheat'		farib xordan 'be cheated'
		šekast dādan 'defeat'		šekast xordan 'be defeated'
			kotak zadan 'beat'	kotak xordan 'be beaten'
			sili zadan 'slap'	sili xordan 'be slapped'
			tā zadan 'fold'	tā xordan 'become folded'
			pič zadan 'twist'	pič xordan 'twist'

Third, after incorporation, the verb involved remains lexically and semantically transparent (e.g., (32)-(34)), whereas in noun-verb combinations the verb engaged is lexicalized to serve as an aktionsart ('type of action', 'mode d' action') marker, a sort of aspectual character (e.g., items (a)-(g) in section 3.1.2). Specifically, the existence of alternative forms exemplified in (5) and (9) clearly support the lexicalization of the verbs involved as aktionsart-markers; they reflect the

manner of the realization of the event as perceived and conceptualized by the speakers. In set (9), if the speaker intends to highlight the force, disconnectedness, and instantaneity of the action, items in the left column, i.e., the *zadan* 'to strike' viewpoint, will be chosen, whereas if the prolongation and duration of the action is to be focused on, the corresponding items in the right column, i.e., the *kešidan* 'to pull, draw' viewpoint, will be selected. Also in the case of items in (5), both *zadan* and *kardan* convey action, but the former viewpoint implies a forceful, specific, disconnected, instantaneous action, whereas the latter implies a general act. Furthermore, pairs or triples such as (45) above clearly suggest that in compounds the mode of the activity is conveyed by the verbal element and the activity itself is expressed by the nonverbal constituent. This observation also suggests that calling the verbal element in compounds a 'light verb' is totally unfounded and counter-intuitive (cf. Mohammad & Karimi in section 2). In the set in (45), empty slots indicate lexical gaps. Similarly, in (46) below, the same adverbial element has formed the nonverbal part of a large number of compounds. The mode of the activity is expressed by the verbal element.

(46)	pas	dādan	'to give back; to refund; to recite as a lesson'
	pas	raftan	'to go back; to decline'
	pas	zadan	'to draw back'
	pas	gereftan	'to take back'
	pas	kešidan	'to retreat'
	pas	āvardan	'to bring back'
	pas	andāxtan	'to beget'
	pas	oftādan	'to fall behind'
	pas	bordan	'to take back'
	pas	ferestādan	'to send back'
	pas	rāndan	'to push back'

If these observations are correct, then the following viewpoints, real or metaphoric, corresponding with the items in 3.1.2 (a)-(g) could be suggested: The DO-ing viewpoint, the STRIKE-ing viewpoint, the GIVE-ing viewpoint, the TAKE-ing viewpoint, the DRAW-ing viewpoint, the HAVE-ing viewpoint, and the EAT-ing viewpoint. In all of these cases, the simple verb is lexicalized to serve as an aktionsart-marker. In line with Binnick (1991:148, 170), I distinguish between 'aspect' and 'aktionsart', considering the former as grammatical(ization) and the latter as lexical(ization). Notions such as perfective, imperfective, habitual are aspectual, whereas concepts such as instantaneous, durational, and the various view-points enumerated above are aktionsarten.

Fourth, compound-verb formation through incorporation is productive and the compound itself is referentially transparent, whereas compound-verb formation via combination is, relative to incorporation, limited in productivity and the compound usually involves metaphoric extension.

It is interesting to note that a single simple verb may participate in both combination and incorporation processes, e.g., *xordan* in 3.1.2 (g), which is lexicalized and expresses the EAT-ing viewpoint (i.e., metaphoric extension of the physical act of eating), and *xordan* in (32), which has remained as a lexical entry and is se-

mantically transparent. A verb such as *kardan* may serve as the verbal element in incorporation as represented in (47) below, as a causative auxiliary in item 3.1.1 (c), and as an aktionsart-marker in noun-verb combinations exemplified in 3.1.2 (a). Diagram (48) recapitulates these possibilities.

(47) a.   man in   kār-hā-rā   kard-am
            I   this   work-pl-DO   did-I
            'I did these works.'

      b.   man kār   kard-am
            'I worked.' (Lit. I work-did.)

It may be noted that it is plausible to have a predicate in whose formation both combination and incorporation have participated. Example (49 a) below contains a compound verb formed via combination, and example (49 b) is its incorporated counterpart.

(48)

```
                              kardan
                             /      \
                  combination        incorporation
                    /      \              |
          Adj+kardan        N+kardan     DO+kardan
              |              /    \          |
          causative  intransitive transitive intransitive
```

(49) a.   man diruz   faqat nāme-hā-rā   post   kard-am
            I   yesterday only   letter-pl-DO   mailing did-I
            'Yesterday I only mailed the letters.'

      b.   man diruz   faqat nāme post kard-am
            Lit. 'Yesterday I only did letter-mailing.'

3.4 Combination and incorporation

At the beginning of section 3, a number of observations were reported suggesting that compound-verb formation is highly productive in Persian. In sections 3.1 and 3.2, two major types of compound-verb formation were introduced, and in section 3.3 the differences between them were highlighted. Now it is time to provide arguments to substantiate the hypothesis in (50).

(50) Hypothesis:
The verbs formed via combination (section 3.1) and incorporation (section 3.2) are morphologically compound.

The arguments that will be presented are phonological, syntactic, and semantic in nature. Representative examples will be chosen from the items in sections 3.1 and 3.2. The evidence forming the arguments show (a) the uniformity of the behaviour of the verbs formed via combination or incorporation, and (b) their differences with simple verbs. Hence they justify the postulation of two different sets of verbs — 'simple' versus 'compound'.

3.4.1 Phonological evidence

The primary stress assignment rule treats compound verbs as unified wholes. There are two patterns of stress. If the compound is used in its infinitive form, the

final syllable of the verb will carry primary stress. If the compound is used in the affirmative finite form, however, then the stress systematically falls on the final syllable of the nonverbal part in the compound (Lambton 1984 [1953]:93, Moyne 1970:63-4, Ghomeshi 1996:256). The verbs listed in (51) exemplify this observation.

(51)

INFINITIVE		FINITE (3RD SINGULAR)		GLOSS
delxor	kardán	delxór	kard-Ø	'to annoy'
tahdid	kardán	tahdíd	kard-Ø	'to threaten'
qosse	xordán	qossé	xord-Ø	'to grieve'
dar miyān	nahādán	dar miyán	nahād-Ø	'to discuss'
dar	yāftán	dár	yāft-Ø	'to comprehend'
qazā	xordán	qazā́	xord-Ø	lit. 'to food-eat'

In simple verbs, when the verb is an infinitive, the final syllable carries the primary stress; but when the verb is affirmative finite (and without any verbal prefix[7]) the stress falls on the last syllable of the verb stem[8]. On this basis, the stress pattern of the simple verbs that have participated in the formation of compounds in (51) will be as shown in (52).

(52)

INFINITIVE	FINITE (3RD SINGULAR)	GLOSS
kardán	kárd-Ø	'to do; to make'
xordán	xórd-Ø	'to eat'
nahādán	nahā́d-Ø	'to put'
yāftán	yā́ft-Ø	'to find'

3.4.2   Syntactic evidence

In this subsection three pieces of evidence will be presented. They all show that the items formed via combination or incorporation behave uniformly as integrated wholes.

3.4.2.1   Nominalization

Persian has an infinitival nominalization process that changes the finite verb of a sentence into an infinitive and makes it the head of an EZAFE construction. If the sentence was transitive, the direct object becomes the dependent of the head; if the sentence was intransitive, the subject assumes the dependent role. The examples in (53) and (54), which contain simple verbs, exemplify the above observation.

(53) a.   ali   raft-Ø
            Ali   left-he
            'Ali left.'

      b.   [raft-an]-e   ali
            left-inf-EZ   Ali
            'Ali's leaving'

(54) a.   šckārči   āhu-rā   košt-Ø
            hunter   deer-DO   killed-he/she
            'The hunter killed the deer.'

      b.   [košt-an]-e   āhu   tavassote šekārči
          killed-inf-EZ   deer   by   hunter
          'The killing of the deer by the hunter'

In compound verbs, the nonverbal part and the verb juxtaposed through combination or incorporation jointly constitute the head in the EZAFE construction. Examples (55)-(57) support this observation. In examples (55) and (56) the compound verb is transitive, whereas in (57) the compound is formed via incorporation (see example (32 b) and hence intransitive.

   (55) a.   ali   minā-rā   delxor   kard-Ø
            Ali   Mina-DO annoying did-he
            'Ali annoyed Mina.'

        b.   [delxor   kard-an]-e minā   tavassote ali
            annoying did-inf-EZ Mina   by   Ali
            Lit. 'The annoying of Mina by Ali.'

   (56) a.   ali   minā-rā   tahdid kard-Ø
            Ali   Mina-DO threat   did-he
            'Ali threatened Mina.'

        b.   [tahdid   kard-an]-e minā tavassote ali
            threat   did-inf-EZ Mina by   Ali
            Lit. 'The threatening of Mina by Ali'

   (57) a.   bačče-hā qazā xor-d-and
            child-pl   food eat-past-they
            'The children did food-eating.'

        b.   [qazā xor-d-an]-e   bačče-hā
            food   eat-past-inf-EZ child-pl
            Lit. 'The food-eating of the children'

It is noteworthy that as the nonincorporated counterpart of (57 a), which is reported in (32 a) and repeated in (58 a), contains a simple transitive verb in its nominalized form, shown in (58 b), the simple verb will be the head and the direct object its dependent.

   (58) a.   bačče-hā qazā-eš-ān-rā   xor-d-and
            child-pl   food-his/her-pl-DO   eat-past-they
            'The children ate their food.'

        b.   [xor-d-an]-e   qazā tavassote bačče-hā
            eat-past-inf-EZ food by   child-pl
            Lit. 'The eating of the food by the children.'

3.4.2.2   Imperfective aspect

In Persian a morphosyntactic construction expresses the progressive notion/imperfective aspect[9]. In it the expression *dar hāl-e* or *mašqul-e* 'in the process of' serves as the head of an EZAFE construction followed by the infinitive form of the verb as its dependent. If the verb is transitive, its direct object will follow the

verb. Examples (59) and (60) are the progressive versions of (53 a) and (54 a), respectively. In these examples, the verb in progress is simple.

(59) ali   dar hāl-e   [raft-an]   ast-Ø
      Ali   in   process-EZ   went-inf   is-he
      'Ali is leaving.'

(60) šekārči dar hāl-e   [košt-an]-e   āhu   ast-Ø
      hunter   in   process-EZ   killed-inf-EZ   deer   is-he/she
      'The hunter is killing the deer.'

Examples (55 a)-(57 a) and similar cases assumed to contain compound verbs, when used in the progressive form, the non-verbal and the verbal part jointly constitute the dependent of the progressive head. Items (61)-(63), which are the progressive versions of the above mentioned examples, illustrate this.

(61) ali   dar hāl-e   [delxor   kard-an]-e   minā   ast-Ø
      Ali   in   process-EZ   annoying did-inf-EZ   Mina   is-he
      'Ali is annoying Mina.'

(62) ali   dar hāl-e   [tahdid   kard-an]-e   minā   ast-Ø
      Ali   in   process-EZ   threat   did-inf-EZ   Mina   is-he
      'Ali is threatening Mina.'

(63) bačče-hā dar hāl-e   [qazā   xor-d-an]   hast-and
      child-pl in   process-EZ food   eat-past-inf is-they
      Lit. 'The children are in the process of food-eating.'

Predictably, the progressive form of (58 a) which is the non-incorporated counterpart of (57 a), will be as shown in (64).

(64) bačče-hā dar hāl-e   [xor-d-an]-e   qazā-eš-ān   hast-and
      child-pl in   process-EZ   eat-past-inf-EZ   food-his/her-pl is-they
      'The children are eating their food.'

3.4.2.3   Interposition

There are a number of grammatical markers that are systematically attached to the verb. These are the negative prefix /na-/, the indicative prefix /mi-/, and the imperative/subjunctive prefix /be-/. Similarly, in the case of compounds formed through combination and incorporation, these markers are uniformly prefixed to the verbal part of the compound. The future tense auxiliary /xāh/, which also precedes simple verbs, is systematically interposed between the non-verbal and the verbal parts of the compounds. Finally when the verb is simple and transitive, a pronominal suffix corresponding with the object may attach to the verb, making the occurrence of the object unnecessary. With transitive compound verbs this pronominal suffix is added only to the nonverbal part of the compound. These observations suggest that compounds formed via combination or incorporation all behave uniformly with respect to interposed elements. Representative examples are given in (65)-(68) below, which correspond to sentences (54 a)-(57 a).

(65) a. šekārči   āhu-rā   na-košt-Ø
         hunter   deer-DO   not-killed-he/she
         'The hunter did not kill the deer.'

    b.   šekārči   āhu-rā   xāh-ad   košt[10]
                                will-he/she
         'The hunter will kill the deer.'

    c.   šekārči   košt-Ø-eš
                    killed-he/she-it
         'The hunter killed it.'

(66) a. ali   minā-rā   delxor   na-kard-Ø
         Ali   Mina-DO   annoying   not-did-he
         'Ali did not annoy Mina.'

    b.   ali   minā-rā   delxor   xāh-ad   kard
                                       will-he
         'Ali will annoy Mina. '

    c.   ali   delxor-eš   kard-Ø
                annoying-her   did-he
         'Ali annoyed her.'

(67) a. ali   minā-rā   tahdid   na-kard-Ø
                           threat   not-did-he
         'Ali did not threaten Mina.'

    b.   ali   minā-rā   tahdid   xāh-ad   kard
                                     will-he
         'Ali will threaten Mina.'

    c.   ali   tahdid-eš   kard-Ø
                threat-her   did-he
         'Ali threatened her.'

(68) a. bačče-hā   qazā   na-xor-d-and
         child-pl   food   not-eat-past-they
         'The children did not eat food.'

    b.   bačče-hā   qazā   xāh-and   xor-d
         Lit. 'The children will food-eat.'

It should be noted that the interposition argument does not weaken the compound nature of the verbs formed via combination and incorporation. Among the compound verbs in Persian consisting of an adverb and a verb (see section 3.1.4), there are some whose nonverbal part are elements such as *var* (e.g., *var āmadan* 'to rise (bread)'), *vā* (e.g., *vā dāštan* 'to force'), *bar* (e.g., *bar andāxtan* 'to overthrow'), *dar* (e.g., *dar gereftan* 'to be kindled'), *foru* (e.g., *foru nešāndan* 'to suppress') *farā* (e.g., *farā gereftan* 'to acquire'), which essentially express direction. These nonverbal elements always appear in the compound (as well as in lexical derivations based on the compounds, e.g., *farā giri* 'acquisition') and are never

used independently in the language. In these cases, too, the aforementioned grammatical markers interpose between the nonverbal and the verbal constituents of the compound.

In the previous paragraph, elements that can be interposed between the nonverbal and the verbal constituents of the compounds were introduced and the uniformity of the behaviour of the two major types of compounds in this respect was pointed out. On the other hand, adverbs may modify the whole compound as a unit, but they cannot be interposed between the two constituents of the compounds, and this constraint is uniformly obeyed by all compounds. Examples (69)-(71), which correspond to sentences (55 a)-(57 a) illustrate this observation.

(69) a. ali   minā-rā   bimowqe delxor   kard-Ø
         Ali   Mina-DO   untimely annoying did-he
         'Ali untimely annoyed Mina.'

     b. * ali   minā-rā   delxor   bimowqe kard-Ø

(70) a. ali   minā-rā   bimowqe tahdid   kard-Ø
         Ali   Mina-DO   untimely threat   did-he
         'Ali untimely threatened Mina.'

     b. * ali   minā-rā   tahdid   bimowqe kard-Ø

(71) a. bačče-hā bimowqe   qazā   xor-d-and
         child-pl   untimely   food   eat-past-they
         'The children untimely did food-eating.'

     b. ?*[11] bačče-hā   qazā   bimowqe xor-d-and

In the nonincorporated counterpart of (71 a) (see sentence (58 a)), the adverb may precede the simple verb and the sentence is fully grammatical. This is shown in (72) below.

(72) bačče-hā qazā-eš-ān-rā   bimowqe   xor-d-and
      child-pl   food-him/her-pl-DO   untimely   eat-past-they
      'The children untimely ate their food.'

As a final point in this section, it may be noted that in both combination and incorporation the nominal part of the compounds is always a noun and never a noun phrase.(However, Samiian (1983:259) and Ghomeshi (1996:265) have claimed that the nonverbal part of the compounds are phrasal. The data presented to substantiate this claim are judged by Ghomeshi (265) to be 'rare' and are unacceptable to me).

3.4.3   Semantic evidence

Semantically the verbs formed via combination and incorporation constitute conceptual wholes. This observation in particular is supported when we take into account verbs whose internal structure contains a noun, i.e. items listed in 3.1.2 and 3.2.1. In all these cases, the nouns are generic, nonreferential, and nonindependent. For instance, in the following discourse whose first sentence is (56 a) (exemplifying a compound formed via combination), the pronoun in the second

sentence can only be understood as referring to the act of threatening, not the noun 'threat' alone.

(73) ali   minā-rā   tahdid   kard-Ø vali   minā   ān-rā
      Ali   Mina-DO   threat   did-he but   Mina   that-DO
      J̌eddi   na-gereft-Ø
      serious   not-took-she
      'Ali threatened Mina but she didn't take it seriously.'

Similarly, as it was reported in example (36 b), the occurrence of the pronoun *ān* in the second conjunct renders the sentence ungrammatical because the incorporated direct object in the first conjunct is no longer available as the pronoun's antecedent.

Another kind of evidence to support the claim that compounds are conceptual wholes is based on scope phenomena. For instance, the negative prefix in compounds formed via incorporation and combination negates the whole compound, not just the verbal element to which it is affixed (e.g., *qazā na-xordan* 'not to eat food', *delxor na-budan* 'not to be annoyed', *yād na-dādan* 'not to teach', *dust na-dāštan* 'not to like'). Similarly, when used in sentences containing compound verbs, modals have scope over the whole compound and not just over the verbal constituent. The items in (74) below exemplify the occurrence of modals with compound verbs (formed through incorporation or combination).

(74) a.   avval bāyad   qazā   xord
            first   must   food   ate
            'One must first eat food.'

      b.   na-bāyad   az   u   delxor   bud
            not-must   from   he/she annoying was
            'One must not be annoyed with him/her.'

      c.   mišavad   be   rāhati   yād   dād
            may   with   ease   remembrance   gave
            'One may teach (something) easily.'

      d.   mitavān   in-rā   dust   dāšt
            can   this-DO   friend   had
            'One can like it.'

4.   Conclusions and implications

In this article I have argued that there are two types of compound verb formation in the lexicon of Persian: 'Combination' and 'Incorporation'. Each contains subdivisions. Evidence was presented to justify the postulation of the two types mentioned. Most importantly, the examples revealed that after incorporation the meaning of the compounds, which is the function of the meanings of their constituents, is transparent and that incorporation is an intransitivization process. I have claimed that in the compounds formed via combination, if the nonverbal part is an adjective or a past participle (in the passive), then the verbal element of the compound serves as an auxiliary. The meaning of these compounds is also trans-

parent. In these compounds when the nonverbal part is a noun, the verbal element is lexicalized and functions as an aktionsart-marker. The meaning of these compounds may not be directly transparent and usually involves metaphoric extension (e.g., *qosse xordan* 'to grieve' (lit. 'grief-eat')). A number of arguments (phonological, syntactic, and semantic in nature) were also presented to suggest that, despite the differences, there are commonalities between the two types that substantiate their classification under one single heading, i.e., compound verbs.

The findings in this article suggest implications. On the theoretical plane, putting Persian facts within the perspective of the theoretical stances on this topic, it may be noted that the findings of this article support the claims of Mithun 1984, Rosen 1989, and Spencer 1995 concerning the morphological/lexical nature of incorporation. More specifically, Persian contains the canonical type of incorporation, i.e., type (I) in Mithun's typology of incorporation, and the aforementioned uniformity of the behavior of the compounds formed via combination and incorporation with respect to the phonological, syntactic, and semantic evidence substantiates the morphological/lexical nature of the process. On the other hand, the existence of the differences between the two major types of compound-verb formation, as well as the existence of morphological processes with varying degrees of productivity within them, support the postulation of different layers in the lexicon. In section 3.2.1, I claimed that the output of incorporation may serve as the input for another lexical process. Further research should concentrate on the kind and range of processes that take compounds formed via incorporation as their input and lexical processes that accept compounds formed through combination as their input. The findings will shed more light on the layers in the lexicon.

On the applied plane, an important issue of concern to Persian lexicographers is the question of the inclusion of compound verbs as lexical entries in Persian dictionaries. On the basis of my observations and findings in this article, I intend to propose the following yardsticks for the issue facing Persian lexicographers. Verbs that are semantically transparent and constitute open sets (i.e., compounds formed through direct-object incorporation and compounds that are the result of the combination of adjectives and auxiliaries) do not need to be included as separate entries. Other compounds introduced and discussed in the article are not usually semantically transparent but are metaphoric extensions of their original meanings and do not form open sets. These verbs have to be listed as separate entries.

NOTES

In this article the following notations and abbreviations are used:

[a]: low front vowel
[ā]: low back vowel
inf: infinitive marker
EZ: EZAFE (genitive) marker
Pl: plural
DO: Direct Object
SUB: subjunctive marker
NEG: Negative
Ø: zero morpheme showing verbal agreement with third person
    singular subject when the verb is used in the past tense.

In the Persian examples quoted from various sources, morphemic segmentations, glosses, and literal translations, if not given in the original sources, are provided by me. A number enclosed in brackets to the right of the translation of a Persian example refers to the number of the quoted example in the original text.

[1] Noun incorporation is scarce and unproductive in English. Rare cases such as *to word-process* (cf. *to process words*), *to mountain-climb* (cf. *to climb a mountain*), *to fund-raise* (cf. *to raise funds*), which resemble noun incorporation, are argued by Mithun (1984:.847, fn.1) not to be so formed, '... but are rather V's backformed from compound N's' (cf. *word-processing*, *mountain-climbing*, and *fund-raising*).

[2] *ro* is a spoken form of *-rā*. Furthermore, Mohammad & Karimi have used *-rā* as a gloss for *-ro*.

[3] This lexical item is an adjective.

[4] This lexical item is an adjective.

[5] For a recent similar treatment, see Ghomeshi (1996:276-84)

[6] In Persian the students (literally) give the exam (i.e., they take it), and the teachers (literally) take the exam (i.e., they give it).

[7] When a simple verb contains a verbal prefix, such as the subjunctive/imperative /be-/ or the indicative marker /mi-/, the prefix absorbs the primary stress.

[8] Agreement suffixes do not take stress.

[9] Another morphosyntactic construction that expresses imperfectivity in Persian is *dāšt-an mi*-verb construction, e.g., *dāšt-and mi-raft- and* 'they were going'. In this construction the verb *dāšt-an* 'to have' (lit. 'had-inf') is grammaticalized and serves as an aspect marker. When this aspect marker is chosen, the main verb takes the indicative prefix *mi-* and both the aspect marker and the main verb agree with the subject.

[10] In Persian, the future tense auxiliary obligatorily agrees with the subject and the main verb appears in its past stem without a subject agreement marker.

[11] The juxtaposition of an asterisk and a question mark suggests that the sentence is not fully ungrammatical but weakly acceptable (in spoken usage).

REFERENCES

BAKER, Mark C. 1988. *Incorporation: A Theory of Grammatical Function Changing*. Chicago: Chicago University Press.

BARJASTEH, Darab. 1983. Morphology, syntax, and semantics of Persian compound verbs: A lexicalist approach. University of Illinois at Urbana-Champaign, Ph.D. dissertation.

BASHIRI, Iraj. 1981. *Persian Syntax*. Minneapolis: Burgess Publishing Company.

BATENI, Mohammad-Reza. 1969. *Towsif-e sāxtemān-e dasturi-ye zabān-e fārsi* (A Description of the Grammatical Structure of the Persian Language) Tehran: Amir Kabir Publishing Company.

BINNICK, Robert I. 1991. *Time and the Verb: A Guide to Tense and Aspect*. New York: Oxford University Press.

CHOMSKY, Noam. 1995. *The Minimalist Program*. Cambridge: MIT Press.

CHAFE, Wallace L. 1970. *Meaning and the Structure of Language*. Chicago: University of Chicago Press.

COMRIE, Bernard. 1976. *Aspect*. Cambridge: Cambridge University Press.

DABIR-MOGHADDAM, Mohammad. 1982a. Syntax and semantics of causative constructions in Persian. University of Illinois at Urbana-Champaign, Ph.D. dissertation.

——. 1982b. Passive in Persian. *Studies in the Linguistic Sciences* 12.1:63-90.

——. 1987. Morphological causatives in Persian. *Proceedings of the 11th Annual Meeting of the Kansai Linguistic Society of Japan*, 60-70.

——. 1992. On the (in)dependence of syntax and pragmatics: Evidence from the postposition -rā in Persian. *Cooperating with Written Texts: The Pragmatics and Comprehension of Written Texts*, ed. by Dieter Stein, 549-73. Berlin & New York: Mouton de Gruyter.

DU PONCEAU, P.S. 1819. Report of the corresponding secretary. *Transactions of the American Philosophical Society* 1.xvii- xlvi.

FORBES, Duncan. 1876. *A Grammar of the Persian Language*. London: Wm. H. Allen & Co.

GHOMESHI, Jila. 1996. Projection and inflection: A study of Persian phrase structure. University of Toronto, Ph.D. dissertation.

HOPPER, Paul J., & Sandra A. THOMPSON. 1980. Transitivity in grammar and discourse. *Language* 56.251-300.

HOPPER, Paul J., & Elizabeth Closs TRAUGOTT. 1993. *Grammaticalization*. Cambridge: Cambridge University Press.

JONES, William. 1828. *A Grammar of the Persian Language*. London: W. Nicol.

KHANLARI, Parviz. 1976. *Dastur-e zabān-e fārsi* (A Grammar of the Persian Language). Tehran: Bonyad-e Farhang-e Iran Press.

——. 1986. *Tārix-e zabān-e fārsi* (A History of the Persian Language). Vol. 2. Tehran: Nashr-e Now Publishing Company.

KHAYYAMPUR, Abdolrasul. 1968. *Dastur-e zabān-e fārsi* (A Grammar of the Persian Language). Tabriz: Ketabforushi Tehran Press.

KLAIMAN, M. H. 1990. The prehistory of noun incorporation in Hindi. *Lingua* 81. 327-50.

KROEBER, Alfred L. 1909. Noun incorporation in American languages. *XVI. Internationaler Amerikanisten-Kongress*, ed. by Frantz Heger, 569-76. Vienna & Leipzig: Hartleben.

——. 1911. Incorporation as a linguistic process. *American Anthropologist* 13. 577-84.

LAMBTON, Ann K.S. 1984 [1953]. *Persian Grammar*. Cambridge: Cambridge University Press.

LYONS, John. 1977. *Semantics*. Vol.2. Cambridge: Cambridge University Press.

MARDIRUSSIAN, Galust. 1975. Noun incorporation in universal grammar. *Chicago Linguistic Society* 11.383-9.

MESHKATODDINI, Mehdi. 1994. *Dastur-e zabān-e fārsi bar pāye-ye nazariye-ye gaštāri* (A Grammar of the Persian Language Based on Transformational theory). Mashhad: Ferdowsi University Press.

MILLER, D. Gary. 1983. *Complex Verb Formation*. Amsterdam: John Benjamins Publishing Company.

MITHUN, Marianne. 1984. The evolution of noun incorporation. *Language* 60.847-94.

——. 1986. On the nature of noun incorporation. *Language* 62.32-7.

MOHAMMAD, Jan,& Simin KARIMI. 1992. 'Light' verbs are taking over: Complex verbs in Persian. *Proceedings of the Western Conference on Linguistics* (WECOL) 5.195-212.

MOYNE, John A. 1970. The structure of verbal constructions in Persian. Harvard University, Ph.D. dissertation.

PHILLOTT, D.C. 1919. *Higher Persian Grammar*. Calcutta: Calcutta University Press.

PLATTS, John T., & George S. A. RANKING. 1911. A Grammar of the Persian Language. Oxford: Clarendon Press.

RASTORGUEVA, V.S. 1966. *Sredne-persidskij yazyk* (A Grammar of the Middle Persian). Moscow. Translated into Persian by V. Shadan. 1968. Tehran: Bonyad-e Farhang-e Iran Press.

ROSEN, Sara Thomas. 1989. Two types of noun incorporation: A lexical analysis. *Language* 65.294-317.

RUBINCHIK, Yu. A. 1971. *The Modern Persian Language*. Moscow: Nauka Publishing House.

SADEGHI, Ali-Ashraf. 1970. Tahavvol-e afāl-e bi qā?ede-ye zabān-e fārsi (The development of irregular verbs in Persian). *Journal of the Faculty of Literature and Humanities of Mashhad* 6.4:791-801.

——. 1993. Dar bāre-ye fe?lhā-ye ǰa?li dar zabān-e fārsi (On denominative verbs in Persian). *Proceedings of the zabān-e fārsi va zabān-e elm* (Persian Language and the Language of Science) *seminar*, 236-46. Tehran: Iran University Press.

SADOCK, Jerrold M. 1980. Noun incorporation in Greenlandic: A case of syntactic word formation. *Language* 56.300-19.

——. 1986. Some notes on noun incorporation. *Language* 62.19-31.

——. 1991. *Autolexical Syntax: A Theory of Parallel Grammatical Representations*. Chicago: Chicago University Press.

SAMIIAN, Vida. 1983. Structure of phrasal categories in Persian: An x-bar analysis. University of California at Los Amgeles, Ph.D. dissertation.

SAPIR, Edward. 1911. The problem of noun incorporation in American languages. *American Anthropologist* 13.250-82.

SHARIFI, Hassan. 1975. Persian verbs: A Chafean analysis. *Mid-America Linguistics Conference Papers.* ed. by Frances Ingemann, 459-68.

SHEIK, Habib, & Hassan SHARIFI. 1975. The semantic structure of the Persian verb /gereftan/ 'to take'. *Mid-America Linguistics Conference Papers*, ed. by Frances Ingemann, 469-76.

SHEINTUCH, Gloria. 1976. Periphrastic verb formation in Persian: A dynamic process. *Current Progress in Historical Linguistics*, ed. by W.M. Christie, 137-46. Amsterdam: North-Holland Publishing Company.

SOHEILI-ISFAHANI, Abolghasem. 1976. Noun phrase complementation in Persian. University of Illinois at Urbana-Champaign, Ph.D. dissertation.

SPENCER, Andrew. 1995. Incorporation in Chukchi. *Language* 71.439-89.

TABAIAN, Hessam. 1979. Persian compound verbs. *Lingua* 47.189-208.

WINDFUHR, L. Gernot. 1979. Persian grammar: History and state of its study. *Trends in Linguistics. State-of-the-Art Reports 12*. The Hague: Mouton Publishers.

WOODBURY, Hanni. 1975. Onondaga noun incorporation: Some notes on the interdependence of syntax and semantics. *International Journal of American Linguistics* 41.10-21.