Position paper

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MYSTERIES OF VERB-VERB COMPLEXES IN ASIAN LANGUAGES
日本語およびアジア諸言語における複合動詞・複雑動詞の謎

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The Organizing Committee

The conference aims at probing the mysteries involved with the linguistic properties, origins, and development of Japanese V-V complexes and the corresponding or nearly corresponding V-V sequences in languages of continental Asia from both language-internal and areal-typological perspectives. To achieve this goal and make the conference a coherent and fruitful one, this paper will describe some possible research questions ("mysteries") that prospective speakers and presenters should take into account in shaping the ideas for their papers. Note that phenomena other than V-V sequences are excluded, for example:

-- Serial verb constructions[NOTE] in which two verbs show up in non-adjacent positions, as in "S V1 O V2";
-- Syntactic combination of two or more verbs in coordination and subordination;
-- Light verb constructions consisting of a light verb and an event nominal, as in the English *take a look* and *give him a kick*;
-- Noun-Verb compounds, Noun-Adjective compounds, and affixed verbs.

MYSTERIES TO BE EXPLORED IN THE CONFERENCE

By virtue of the form-meaning iconicity, a single verb normally represents a single "eventuality" (a cover term for an event, action, change, and state) that takes place in the real or hypothetical world. Because of this restriction, many languages have recourse to additional linguistic means such as affixes, particles and verb sequences to designate a complex or composite eventuality integrating two or more (sub-)eventualities that are conceived of as being tightly related with each other into a conceptually coherent unit. For example, to describe a situation in which one uses all the things one has, English employs a particle verb like *use up*, and Japanese a compound verb like *tukai-kiru* lit. 'use-cut' = 'use up', *tukai-hatasu* lit 'use-accomplish', or *tukai-tukusu* lit. 'use-exhaust'. The strategy of adjoining two (or more) verbs in the form of morphological compound verbs or syntactically complex verb sequences is frequently exploited by Japanese and other Asian languages. For convenience' sake, such compound and complex verb sequences are referred to as "V-V complexes" here, since the degrees of their morphological cohesion or "wordhood" are very likely to vary; indeed, different levels of defining the notion "word" itself will be a fundamental topic common to all the speakers in this conference.

In what follows, typical issues to be discussed in the conference will be explained by dividing them into those pertinent to Japanese and those pertinent to languages outside Japanese. Naturally, however, many of the topics in the two divisions overlap, and it is those overlapping topics that constitute the core of the conference.

• *Overall issues*

Among Asian languages, significant differences as well as similarities are observed concerning such questions as follows:

-- What types of V-V sequences are available in individual languages? Is one language limited to only one particular type?

-- Are the V-V complexes are compound words or complex verbs (phrases)?

-- What types of verbs are qualified as the second verbs (V2) of the sequences?

-- What kinds of restrictions are there on the production of new V-V complexes?

-- Does a V-V complex represent multiple eventualities or just a single eventuality?

-- Can a sharp dividing line be drawn between a single and multiple eventualities?

-- What is the function of V2 in each type of V-V sequence?

-- How do V1's or V2's get grammaticalized?

Some issues pertaining to Japanese

With respect to the richness, diversity, and productivity of such V-V complexes, Japanese appears to stand out among the Asian languages that have this kind of grammatical device. Chart 1 below summarizes four major types of V-V complexes available in contemporary Japanese, together with their defining characteristics.

	TYPE 1: Lexical thematic compound verbs **Exx.** *osi-akeru* 押し開ける push-open(tr.) = 'to push (a door) open' *suberi-otiru* 滑り落ちる slip-fall (intr.) = 'slip off, slide down' **naki-sakebu** 泣き叫ぶ cry-shout = 'cry and scream' *nagare-komu* 流れ込む flow-go.in = 'flow in' *aruki-tukareru* 歩き疲れる walk-get.tired = 'get tired from walking'	**TYPE 2: Lexical aspectual compound verbs** **Exx.** *ami-ageru* 編み上げる knit-accomplish = 'finish knitting' *naguri-kakaru* 殴りかかる strike-set.about = 'to strike at, take a swing at' *saki-hokoru* 咲き誇る bloom-boast = '(flowers) be in full bloom" *hare-wataru* 晴れ渡る clear-go.across = '(sky) clear up all over'	**TYPE 3: Syntactic compound verbs** **Exx.** *hataraki-tuzukeru* 働き続ける work-continue = 'keep on working' *kaeri-kakeru* 帰りかける leave-hang ='be about to leave' *tabe-sokonau* 食べそこなう eat-spoil = 'miss eating' *tuka-tukusu* 使い尽くす use-exhaust = 'use up'	**TYPE 4: Syntactic complex verbs** **Exx.** (**N.B.** GER=gerundive) **COMPLEMENTATION** *tabe-te miru* 食べてみる eat-GER see = 'try and eat' *yon-de ageru* 読んであげる read-GER give = 'read aloud for someone' *sodat-te iku* 育っていく grow-GER go = 'grow gradually' *yon-de simau* 読んでしまう read-GER put.away ='finish reading' **MANNER** *arui-te iku* walk-GER go = 'go on foot'

A. productivity	Dictionaries list about 2,000 entries, but web search shows many new or nonce compounds. Productivity depends not only on individual V2's but also on the semantic relations between V1 and V2.	Dictionaries list about 800 entries, but web search shows many new or nonce compounds. Productivity depends on individual V2's. Many V2's occur with only a small set of designated V1's, but the total number of V2's (lexical auxiliary verbs) is rather large.	Fully productive, with any verb qualifying as V1 as far as the combinations are semantically well-formed. By contrast, the V2's are limited to a designated set of about 30 or 40 auxiliary verbs.
			    Recursivity: Applies recursively, as in *tabe-sokonai-kakeru* 'eat-fail-be.about.to' = 'almost miss eating'. Type 3 also intermingles with Type 4 (see G).
				Fully productive. The V2's are limited to a designated set of less than 10 auxiliary verbs.
				
				    Recursivity: Applies recursively, as in *si-te mi-te ageru* 'do-see-give' = 'try and do for someone'. Type 4 also intermingles with Type 3 (see G).

B. morphological composition	V1 in *ren'yoo* ('gerundive') form + V2 in regular verb inflections.			V1 inflected in –*te* gerundive (or conjunctive) form + V2 in regular verb inflections.
C. V2 as a lexical verb or an auxiliary verb	V2 as well as V1 is a full-fledged lexical verb with its original lexical meaning.	While V1 keeps its own lexical meanings, V2 has lost its original verb meaning and serves as an auxiliary verb designating a diversity of aspectual meanings.		

D. argument structure and semantic interpreta-tion	Semantically, V1 modifies the meaning of V2 in particular semantic relations such as manner of action/motion, cause-result relationship, dvandva etc.). V2 is the primary determinant of the argument structure and case relations of a whole compound.	V1 is the primary determinant of the argument structure of a whole V-V complex, and V2, as an auxiliary verb, augments V1's lexical meaning (or in Types 3 and 4, the meaning of a whole verb phrase containing V1) with a variety of Aktionsart meanings that include not only temporal aspect but also spatial aspect (i.e. spatial orientation of an event) and social aspect (i.e. social orientation involving personal relations of higher or lower positions). N.B. This construal holds for those cases in which V2 has a complementation relation with V1.	
E. Morpho-logical status of a whole V-V complex	V1 and V2 make up a tight morphological unit and behave as a 'word' at all stages of syntactic structure. The so-called "lexical integrity" applies strictly. Thus, the two verbs cannot be separated by particles (*suberi-mo-otiru 'slide-PART-fall'), nor can only V2 be put in an honorific form (*suberi-o.oti.ni.naru 'slide-HON.fall).	At an underlying syntactic structure, V1 and V2 are separate constituents and presumably get fused into a compound verb at some later level of syntactic structure. The two verbs cannot be separated by syntactic means such as particles or honorifics (*tabe-o.hazime.ni.naru 'eat-HON.begin).	V1 is inflected in the –te (gerundive) form, and V2 follows it. Although the two verbs always occur side by side, they do not make up morphological compounds because they can be separated by particles. It is also possible that only V2 is put in honorific forms (tabete o.simai.ni.naru 'finish eating', tabete go.ran.ni.naru 'try and eat').
F. lexical or syntactic status	Types 1 and 2 are lexical because the head (V2) directly selects a lexical category (V1); in other words, V1 is directly compounded with V2.		Types 3 and 4 are syntactic because V1 and V2 are not directly combined; instead, V2 takes a complement clause or a verb phrase that is headed by V1, as in the structure [….. V1] V2.
G. Interaction among the four groups	It is possible that a Type 1 compound is followed by a lexical auxiliary verb of Type 2, but the reverse order (Type 2 followed by Type 1) is totally ruled out. Compounds of Type 1 and Type 2 can freely occur inside Types 3 and 4, but not vice versa. There is thus a clear ordering restriction: Type 1 > Type 2 > Types 3 and 4.		No ordering between Type 3 and Type 4. These two types may intermingle with each other, as in tabe-kake-te miru 'try to start eating' (Type 3 followed by Type 4) or tabe-te mi-kakeru 'start trying to eat' (Type 4 followed by Type 3).
H. interaction with passive, causative,	The compound verbs of Type 1 and Type 2 can never be intervened by syntactic passive or causative. As a result, passive and causative must be attached outside the whole compound. This ordering restriction automatically follows from the fact that passive and causative in Japanese belong to the same syntactic level as Types 3 and 4.		V1 and V2 can intermingle with causative and passive, as far as the combinations are semantically felicitous. For example, V1-PASS-V2-CAUS, V1-CAUS-V2-PASSIVE, etc.
I. Idioms	Idioms like abura-o uru lit. 'sell oil' = 'to shoot the breeze during one's work hours' are syntactically fixed combinations of words whose meaning cannot be interpreted compositionally. Because of their syntactic status, idioms can never appear as the V1 of Type 1 or Type 2 compounds.		Idioms can occur as V1 of Type 3 and Type 4 verb complexes, as in abura-o uri-hazimeru 'begin to shoot the breeze during the work hours' and abura-o utte simau 'have shot the breeze (unwittingly)'.

Of the four types, Types 1, 2, and 3 are morphologically qualified as compound verbs, whereas Type 4 is not exactly a morphological word but behaves functionally as a complex predicate. Columns A and E–I are all indicative of the lexical nature of Type 1 and Type 2 and, conversely, the syntactic character of Type 3 and Type 4. And yet, Columns B–E reveal differences between Type 1 and Type 2, and between Type 3 and Type 4. The continuity between the lexical and the syntactic

groups is suggested by the existence of Type 2 complexes, whose second verbs function as auxiliary verbs in much the same way that the V2's of Types 3 and 4 do. As explained shortly, such a rich variety of V-V complexes is not found easily in other Asian languages than Japanese.

While Chart 1 shows only the characteristic properties of the four types of compound and complex verbs, more concentrated work is obviously necessary to fully elucidate the nature of each of the four types as well as the mutual relationships among them. As we move stepwise from Type 1 to Type 4, there is apparently a gradient of semantic bleaching in the second verbs (V2) from full-fledged verbs with argument structures and lexical meanings to auxiliary-like verbs with aspectual flavors to syntactic auxiliary verbs taking the whole events denoted by the first verbs (V1) in their scope. Perhaps an important thing in Japanese is that the V2's in all the four types, including auxiliary or auxiliary-like verbs, are inflected morphologically as "verbs".

Based on his philological observation concerning non-compound accentuation and particle insertion, Haruhiko Kindaichi (1953) claimed that what look like V-V compound verbs in Old and Early Middle Japanese did not constitute morphological words but were merely sequences of two verbs. Putting aside the recalcitrant question of whether such V-V sequences in Old and Early Middle Japanese were morphologically "words" or not, however, recent work by Kazuo Seki, Hirofumi Aoki, Bjarke Frellesvig, and many other researchers has made it increasingly clear that the V-V sequences in the early periods share a number of semantic and structural similarities with the compound verbs in current Japanese, although there were obviously lexical differences. It is thus an outstanding question in the history of Japanese when and how the rich variety of V-V compound and complex verbs that are available in contemporary Japanese emerged.

A substantial clue to solving all these mysteries appears to lie in the nature of V2's in Types 2, 3, and 4, which would lead to differences between Japanese and other languages including Korean. Detailed examination of Ryukyuan languages and Ainu will also contribute greatly to our understanding of Japanese.

In Japanese, then, the following broad questions can be set up.
  (a) The validity of the distinction between lexical and syntactic compound verbs (Types 1/2 and Types 3/4) and their defining properties.
  (b) Subtypes within each of the four types of verb complexes, and their characteristic properties.
  (c) The nature of auxiliary verbs in Types 2, 3 and 4, with particular focus on the direction of semantic shift.
  (d) The historical development of all the four types of verb complexes from Old to Modern Japanese.
  (e) The role of Ryukyuan languages in tracing the origins of Japanese V-V complexes.

• Some issues pertaining to verb-verb complexes in Asian languages outside Japan
In his pioneering 1976 study Masica used the "[explicator] compound verb" as one of the features whose geographic distribution across the Eurasian landmass defines South and Central Asia as a linguistic area. The absence of these compound verbs in the languages of China and Southeast Asia bundles with a number of other isoglosses to demarcate the eastern and southern boundaries of the Indo-Turanian Linguistic Area (Masica 1976:181). However, "[explicator] compound

verb" is not a given or self-evident category. On the basis of its shared properties in the languages of South Asia and Central Asia we may define it as a sequence of two verbs AB (main A plus auxiliary or 'vector' B) that alternates with main verb A used alone *with little or no difference in meaning* in languages which do not have compound verbs (such as Sanskrit or English). Regardless of their family affiliations (Indo-Aryan, Dravidian, Tibeto-Burman, or Mundan) almost all South Asian languages have verb-verb concatenations meeting this minimal definition.

In these languages members of the sets of auxiliary (or "vector") verbs are homophonous with members of their inventories of basic lexical verbs. As full lexical verbs these express a change in location or posture, or an action that entails such a change: GO, GIVE, TAKE, THROW, LET GO, GET UP, COME, STRIKE, SIT, FALL, etc. A compound verb (CV) is composed of the finite [or non-finite] form of one of these vectors following a cojunctive participial or bare stem form of a main or "polar" verb. In the following pair of examples from Hindi-Urdu the non-compound (or 'simple') verb form *ātā* alternates with the compound *ā jātā*:

(1a)	*rāt-ko*	*yahā̃*	*roz*	*pānī*	*pī-ne*	***ātā***	***hai***
	night-Dat	here	daily	water	drink-Inf	come	is (PresHabit)

'Every night he comes here to drink water.' (Premchand's *Godān*, page 86, line 5)

(1b)	*kabhī.kabhī*	*dopahar-mẽ*	*bhī*	***ā***	***jātā***	***hai***
	sometimes	afternoon-in	also	come	GO	is (PresHabit)

'Sometimes he comes in the afternoon, too.'   (*Godān,* page 86, line 6)

Though the meaning of the simple verb form *ātā* in (1a) is not the same as that of the corresponding compound verb form *ā jātā* in (1b), the difference in their meanings is not one that is easy to articulate or to translate into English. Certainly the meaning of the vector *jā* 'GO', whatever it may be in (1b), is not the same as the meaning of the full lexical verb *jātā* 'go' in (2):

(2)	*is*	*nrity mẽ*	*ek*	*hāthī*	*nadī-mẽ*	*pānī*	*pī-ne*	***jātā***	*hai*
	this	dance-in	one	elephant	river-in	water	drink-Inf	go	is (PresHabit)

'In this dance an elephant goes into the river to drink water.'   (pratilipi.in/2011/11/fiction-ravindra-aarohi)

Ability to alternate with a corresponding simple verb with little or no easily translatable change in meaning is in fact the one property that most distinguishes Vv compound verbs from all other verb-verb sequences. We may say that the vector verb alternates with its absence. This feature distinguishes vector verbs from modal verbs, tense auxiliaries, phasal verbs, and the secondary elements in serial verbs. Awareness of alternation as a distinguishing feature of the compound verb divides the world of SAL linguists: Those who understand it include Burton-Page (1957), Hacker (1958, 1961), Pořízka (1967-69), Nespital (1989), and Hook (1974, 1993a, 1996, 1999). Those who do not tend to limit their treatment of compound verbs to making lists of vectors with brief remarks on the kinds of meanings each vector conveys. Some lists include either too many items (notably Vale 1984). Others, too few. Occasionally such treatments are very detailed and correspondingly useful.

Among the latter are Neukom and Patnaik on Oriya (2003) and Schiffman on Tamil (1969).

The presence in (1b) of the vector *jātā* which (as a full lexical verb) would be the antonym of the main verb *ā* 'come' without creating contradiction is an unmistakable indication of grammaticalization. In South Asian languages, compound verb vectors (or auxiliaries) exhibit a greater or lesser degree of semantic bleaching. The subtle differences in meaning which stem from their presence as opposed to their absence also vary from one language to another. For some languages it can be shown that the compound vs. non-compound verb opposition has become part of a system of semantic contrasts, part of the verbal paradigm, functioning to express manner, spatial orientation, and aspect (perfective versus aspectually unspecified conceptualizations of actions and events).   For other languages it can be shown that this has not (yet) happened. For such demonstrations quantitative methods are required (Hook 1988, 1991, 1993a, 1993b)

Depending as it does on making subtle semantic distinctions, the alternation of compound versus simple verbs has not attracted much attention from formal linguists. Works by Miriam Butt and her co-authors are an exception (Butt 1995, 2003), (Butt and Scott 2002). Recently attention has also turned to the ability [or inability] of vector verbs to be diachronic sources of auxiliaries (Butt and Geuder 2003) and, ultimately, of bound morphemes (Steever 1993).

While some languages in South and Central Asia may not have the whole inventory of V-V complexes found in Japanese, it remains to be seen exactly what types of V-V complexes are available in these languages and what types of V-V complexes that are missing in Japanese may exist in them. Wider typological studies of compound verbs have begun to appear: Maisak (2002), Zeisler (2004), Hook and Liang (2006), and Anderson (2007).

Chart 2 below summarizes the characteristics of V-V combinations in two Indo-Aryan languages Hindi-Urdu and Marathi.

Chart 2: V-V combinations in Hindi-Urdu and Marathi.

Lang＼Type	1. Polar + factor verb	2. Polar + polar verb	3. Polar + phasal verb	4. Polar + vector verb
Marathi:	*šodh-un kāḍh-Ne* (search-CP take.out-Inf) find, discover (after effort)	*pur-un ur-ṇe* (suffice-CP be.left.over-Inf) to be more than a match for	*khāy-lā survāt kar-ṇe* (eat-Dat start do-Inf) start to eat	*khā-un ghe-ṇe* (eat-CP TAKE-Inf) eat up
[CP = suffix of conjunctive participle]	*ghasar-un paḍ-ṇe* (slide/slip-Inf fall) slip off/down	*tuṭ-un paḍ-ṇe* (break-CP fall-Inf) fall on; vehemently attack	*khāy-ts@ thāmb-ṇe* (eat-Gen stop-Inf) stop eating	*khā-un bas-ṇe* (eat-CP SIT-Inf) eat [by mistake]
Hindi-Urdu:	*khoj nikāl-nā* (search take.out-Inf) find, discover (after effort)	*cal bas-nā* (walk settle-Inf) expire, pass away, die	*khā-nā šuru kar-nā* (eat-Inf start do-Inf) start eating	*khā le-nā* (eat TAKE-Inf) eat up
	fisal paṛ-nā (slide/slip-Inf fall) slip off/down	*bajā lā-nā* (make.ring bring-Inf) perform [a salute]	*khā-nā band kar-nā* (eat-Inf close do-Inf) stop eating	*khā baiṭh-nā* (eat SIT-Inf) eat [by mistake]

Japanese:	*sagaš-i da-su* 捜し出す (search-Inf take.out-Inf) find, discover (after effort)	*saki-hokoru* 咲き誇る (bloom-boast) [flowers] be in full bloom	*tab-e hajime-ru* 食べ始める (eat-Inf start-Inf) start eating	*tabe-te šima-u* 食べてしまう(eat-CP PUT.AWAY-Inf) eat up; eat [by mistake]
[SInf = short infinitive]	*suber-i ochi-ru* 滑り落ちる (slide/slip-SInf fall-Inf) slip off/down	*hare-wataru* 晴れ渡る (clear.SInf-go.across) [sky] clear up all over	*tab-e oe-ru* 食べ終える (eat-SInf stop-Inf) stop eating, finish eating	*tabe-te ok-u* 食べておく (eat-CP KEEP-Inf) eat (with future need in view)
Semantic center	In V1 or in V2 or in both	In V1 and V2 taken together	V1 is the complement of V2	In V1 [with desinence on V2]
Semantic transparency	V1 and V2 profile facets of a [notionally] complex action	Meaning of an entire verb-verb complex vis-à-vis components is opaque and unpredictable.	Meaning of each component is transparent.	Meaning of V1 is transparent. V2 is bleached of lexical mg and alternates with its absence.
No change in valency of V1	Yes	Yes	Yes	Yes
Typological distribution	Parallel expressions in many but not all langs [OV & VO]	Common in Japanese. Rare in Indo-Aryan languages.	Probably found in most if not all languages	In many [but not all] OV langs
Flux of vector / factor verbs	Number of vectors ranges from single digits to a couple of dozen. Number of factors may be greater but the range and frequency of individual factors is smaller than the range and frequency of individual vectors.			
Frequency of vector compound verbs in texts	Varies from one language to another and also within a language from one genre to another. Type 4 sequences are most common in Hindi-Urdu. Less common in Japanese. Least common in Marathi. Common in lively narratives. Much less common in formal statements, descriptions, legal language, etc.			

Among possible research questions:
(1)   To what extent does Table 1's four-fold taxonomy of V-V complexes in Japanese apply to V-V sequences in Korean, Indo-Aryan and other Indian languages?   To V-V sequences in Altaic, Mongolic and northeast Caucasian?
(2)   What types of verbs are qualified to be the second verbs (V2's) in V-V sequences?
(3)   What is the function of V2 in each type of V-V sequence? Can V2's be classified by function and sub-function?
(4)   How closely are the second elements (V2's) in V-V sequences related to their putative basic lexical sources?   Are they to be classed as auxiliaries?   Light verbs?   *Sui generis*?
(5)   Are V2's subject to the processes of grammaticalization in ways similar to auxiliaries and other function words?
(6)   Which V-V sequences represent multiple eventualities, composite eventualities and single integral eventualities?   Is there competition over time between V-V sequences belonging to these different types?
(7)   Do V-V sequences diffuse easily across language family borders?
(8)   What are the earliest attestations of V-V sequences in South Asia and Central Asia?

Selected References

Japanese
A fuller list of books and articles (mostly written in Japanese) that deal with Japanese compound verbs is downloadable from:
   http://www.ninjal.ac.jp/research/project/a/lexicon/lexicon-products/

Falsgraf, Carl and Insun Park. 1994. Synchronic and Diachronic Aspects of Complex Predicates in Korean and Japanese. *Japanese/Korean Linguistics* 4: 221–237.   CSLI.

Frellesvig, Bjarke, Stephen Horn, Kerry Russel, and Peter Sells. 2010. "Verb Semantics and Argument Realization in Pre-modern Japanese: A Preliminary Study of Compound Verbs in Old Japanese."   *Gengo Kenkyu* 138: 25-65.

Fukuda, Shin. 2012. "Aspectual verbs as functional heads: Evidence from Japanese aspectual verbs." *Natural Language & Linguistic Theory* 30.

Fukushima, Kazuhiko. 2005.   "Lexical V-V Compounds in Japanese: Lexicon vs. Syntax." *Language* 81(3): 568-612.

Fukushima, Kazuhiko. 2008. "On the Type-wise Productivity of Lexical V-V Compounds in Japanese: A Thematic Proto-role Approach." *Gengo Kenkyu* 134: 119-140.

Gamerschlag, Thomas.   2001. "Complex Predicate Formation and Argument Structure of Japanese V-V Compounds"   *Japanese/Korean Linguistics* 10.

Himeno, Masako 姫野昌子. 1999.   『複合動詞の構造と意味用法』 ひつじ書房

Kageyama, Taro 影山太郎. 1993. 『文法と語形成』ひつじ書房

Kageyama, Taro 影山太郎. 2013.   「語彙的な複合動詞と補助動詞」   『レキシコンフォーラム』第 6 号. ひつじ書房.

Kageyama, Taro. 1982.   "Word Formation in Japanese."   *Lingua* 57(2-4): 215-258.

Kageyama, Taro. 1989.   "The Place of Morphology in the Grammar: Verb-Verb Compounds in Japanese." In: Geert Booij and Jaap van Marle (eds.) *Yearbook of Morphology* 2: 73-94.   Dordrecht: Foris.

Kageyama, Taro. 1999.   "Word Formation." In: Natsuko Tsujimura (ed.) *The Handbook of Japanese Linguistics*, 297-325. Blackwell.

Kageyama, Taro. 2009. "Chapter 28 *Isolate*: Japanese". In: Rochelle Lieber and Pavol Stekauer (eds.) *The Oxford Handbook of Compounding*, 512-526. Oxford University Press.

Kindaichi, Haruhiko 金田一春彦. 1953.「国語アクセント史の研究が何に役立つか」『金田一博士古稀記念言語民俗論叢』329-354. 三省堂

Kuno, Susumu. 1973.   *The Structure of the Japanese Language*.   MIT Press.／ 久野暲『日本文法研究』大修館書店

Lieber, Rochelle. 2009. "A Lexical Semantic Approach to Compounding"   In: Rochelle Lieber and Pavol Stekauer (eds.) *The Oxford Handbook of Compounding,* 78-204.   Oxford University Press.

Martin, Samuel. 1975.   *A Reference Grammar of Japanese*.   Yale University Press.

Matsumoto, Yo 松本　曜. 1998.   「日本語の語彙的複合動詞における動詞の組み合わせ」『言語研究』114

Matsumoto, Yo. 1996.   *Complex Predicates in Japanese: A Syntactic and Semantic Study of the Notion 'Word'*.   Stanford: CSLI , Tokyo: Kurosio Publishers.

Naumann, Ralf and Thomas Gamerschlag. 2003. "Constraining the Combinatorial Patterns of Japanese V-V Compounds: An Analysis in Dynamic Event Semantics."   *Journal of Semantics* 20(3): 275-296.

Nishiyama, Kunio. 1998.   "V-V Compounds as Serialization"   *Journal of East Asian Linguistics* 7: 175–217.

Nishiyama, Kunio. 2008. "V-V Compounds" In: Shigeru Miyagawa and Mamoru Saito (eds.) *The Oxford Handbook of Japanese Linguistics,* 320–347. Oxford University Press.

Saito, Michiaki 斎藤倫明. 2004. 『語彙論的語構成論』ひつじ書房

Seki, Kazuo 関 一雄. 1977. 『国語複合動詞の研究』 笠間書院

Shibatani, Masayoshi and Sung Yeo Chung. 2007. "On the Grammaticalization of Motion Verbs -- A Japanese/Korean Perspective" *Japanese/Korean Linguistics 15*. CSLI

Shibatani, Masayoshi. 1994. Benefactive Constructions: A Japanese-Korean Comparative Perspective. In Noriko Akatsuka (ed.) *Japanese/Korean Linguistics* 4: 39–74. Stanford, CA: CSLI Publications.

Shibatani, Masayoshi. 2009. "On the form of complex predicates: Toward demystifying serial verbs" In Johannes Helmbrecht, et al. (eds.) Form and Function in Language Research. Berlin: Mouton de Gruyter. 309-336.

Stekauer, Pavol, Salvador Valera, and Livia Kortvelyessy (eds.). 2012. *Word-Formation in the World's Languages: A Typological Survey*. Cambridge University Press.

Strauss, Susan. 1994 . A Cross-Linguistic Analysis of Japanese, Korean and Spanish: *-te shimau*, *-a/e pelita*, and the 'Romance Reflexive' *se*. In Noriko Akatsuka (ed.) *Japanese/Korean Linguistics* 4: 257–273. Stanford, CA: CSLI Publications.

Tagashira, Yoshiko. 1978. *Characterization of Japanese Compound Verbs*. Ph.D. dissertation, University of Chicago

Tamaoka, Katsuo, Hyunjung Lim, and Sakai Hiromu. 2004. "Entropy and Redundancy of Japanese Lexical and Syntactic Compound Verbs" *Journal of Quantitative Linguistics* 11(3): 233-250.

Tomioka, Naoko. 2004. "The lexicalization patterns of verbs and V-V compounds" In D. Beermann and L. Hellan, eds., *Proceedings of Workshop on Multi-Verb Constructions* , Trondheim.

Toratani, Kiyoko. 2002. *The Morphosyntactic Structure and Logical Structures of Compound Verbs in Japanese*. Ph.D. dissertation University of New York at Buffalo

Toratani, Kiyoko. 2007. "A Semantic and Pragmatic Account of the *-te-ar* Construction in Japanese." *Journal of Japanese Linguistics* 23: 47-75.

Tsukamoto, Hideki 塚本秀樹. 2012. 『形態論と統語論の相互作用—日本語と朝鮮語の対照言語学的研究』 ひつじ書房.

Uchiyama, Kiyoko, Timothy Baldwin and Shun Ishizaki. 2005. "Disambiguating Japanese Compound Verbs." *Computer Speech and Language* 19(4): 497-512.

Vance, Timothy J. 2001. "Semantic Bifurcation in Japanese Compound Verbs" *Japanese/Korean Linguistics* 10.

Yamamoto, Kiyotaka 山本清隆. 1984.「複合動詞の格支配」 『都大論究』21: 32-49.

Yumoto, Yoko. 2001. "A Modular Approach to the Semantic Interpretation of Syntactic V-V Compounds" *Journal of Japanese Linguistics* 17: 125-150.

Yumoto, Yoko 由本陽子. 2005. 『複合動詞・派生動詞の意味と統語—モジュール形態論から見た日英語の動詞形成』 ひつじ書房

Yumoto, Yoko. 2009. "Modularity of Word Formation: Differences between Two Types of Japanese Compound Verbs" Hoshi, Hiroto (ed.) *The Dynamics of the Language Faculty*, 203-230. Kurosio.

Handouts of paper presentations at one of the most recent research meetings of Kageyama's compound verb research project are downloadable from:
http://www.ninjal.ac.jp/lexicon/workshop/H24/02_924/

South Asian Languages

Abbi, A. and D. Gopalkrishnan. 1991. Semantics of Vector Compound Verb in South Asian Languages. *Languages Sciences* 13.2: 161-180.

Anderson, Gregory. 2007. *The Munda Verb: Typological perspectives.* Berlin: Mouton de Gruyter.

Bhat, D.N.S. 1979. Vectors in Kannada. *International Journal of Dravidian Lingusitics* 8.2: 300-309.

Burton-Page, J. 1957. Compound and Conjunct Verbs in Hindi. *Bulletin of the School of Oriental and African Studies*. Vol. XIX: 469-478.

Butt, Miriam. 1995. *The Structure of Complex Predicates in Urdu*. Stanford, CA: CSLI Publications.

Butt, Miriam. 2003. *The Light Verb Jungle.* In G. Aygen, C. Bowers(?), and C. Quinn (eds). *Harvard Working Papers in Linguistics, Vol. 9: Papers from the GSAS/Dudley House Workshop on Light Verbs.* Pp. 1-49.

Butt, Miriam, and Wilhelm Geuder. 2003. Light Verbs in Urdu and Grammaticalisation. In Regine Eckardt, Klaus v. Heusinger and Christoph Schwarze (eds): *Words in Time. Diachronic Semantics from Different Points of View*. Berlin: Mouton de Gruyter Pp. 295-350.

Butt, Miriam, and Biljana Scott. 2002. *Structuring events: The role of light verbs and directionals*. Paper presented at the 2002 Meeting of the Linguistics Association of Great Britain, University of Manchester.

Dasgupta, Probal. 1977. The Internal Grammar of Compound Verb in Bangla. *Indian Linguistics* 38: 68-85.

Fedson, V. J. 1985. A Note on Periphrastic Serial or Compound Verb Causative Constructions in Tamil. *CLS* 21: 13-20.

Gopakrishnan, D. and A. Abbi. 1992. The Vector Compound Verb: Some Definitional Issues and Criteria for Identification. *Indian Linguistics* 53.1-4: 27-46.

Hacker, Paul. 1961. On the problem of a method for treating the compound and conjunct verbs in Hindi. *BSOAS* 24:484-516.

Hacker, Paul. 1958. *Zur Funktion einiger Hilfsverben im modernen Hindi.* Akademie der Wissenschaften und der Literatur in Mainz. Wiesbaden: Franz Steiner Verlag GMBH. (Japanese translation [by Tomio Mizokami] in 3 numbers of *Journal of Osaka University of Foreign Studies,* 1972, 1973, 1975.)

Hook, Peter E. 1974. *The Compound Verb in Hindi*. Ann Arbor: Center for South & Southeast Asian Studies, University of Michigan.

Hook, Peter E. 1991. The Emergence of Perfective Aspect in Indo-Aryan Languages. In Traugott, E. and B. Heine (eds.) *Approaches to Grammaticalization*. Vol. 2. Amsterdam and Philadelphia: John Benjamins. Pp: 59-89.

Hook, Peter E. & O. N. Koul. 1992. On the Compound Verbs in Kashmiri. *International Journal of Dravidian Linguistics* XXI-1: 1-16.

Hook, Peter E. 1993a. Seven variables controlling the use of the compound verb in Hindi-Urdu texts. *South Asian Language Review* 3: 59-70.

Hook, Peter E. 1993b. Aspectogenesis and the compound verb in Indo-Aryan. In: Manindra K. Verma (ed.) *Complex predicates in South Asian languages*, 97-113. New Delhi: Manohar.

Hook, Peter E. 1996. The compound verb in Gujarati and its use in connected text. In: R.T. Vyas (ed.) *Consciousness manifest: Studies in Jaina art and iconography and allied subjects in honour of Dr. U.P. Shah*, 339-56. Vadodara: Oriental Institute.

Hook, Peter Edwin. 1999. Where Do Compound Verbs Come From? (And Where Are They Going?). *Working Papers of International Symposium on South Asian Languages: Contact, Convergence and Typology*. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies.

Hook, Peter, and Hsin-hsin Liang. 2006. The compound verb in Chinese and Hindi-Urdu and the plausibility of macro linguistic areas. In Masica, Colin (ed) *Old and New Perspectives on South Asian Languages: Grammar and Semantics*. Delhi: Motilal Banarsidass. Pp. 105-126.

Hook, Peter E. and Prashant Pardeshi. MS. *Inflation in the Marathi compound verb: 1300-2000*.

Kachru, Y. and R. Pandharipande. 1980. Towards a Typology of Compound Verbs in South Asian Languages. *Studies in Linguistic Sciences* 10.1: 113-124.

Koul, V. K. 1985. *The Compound Verb in Kashmiri*. Unpublished doctoral dissertation form Kurukshetra University.

Machida, Kazuhiko. 1983. On the choice of explicators *jaa, le*, and *de* in the Hindi compound verb. In *Area and Culture Studies,* 33:33-61.

Tokyo: Tokyo University of Foreign Studies.

Maisak, Timur. 2002. Типология грамматикализации конструкций с глаголами движения и глаголами позиции. [The typology of the grammaticalization of constructions involving verbs of motion and verbs of position]. Accessible at http://www.mccme.ru/ling/referat/maisak.html

Masica, Colin, P. 1976. *Defining a Lingusitic Area*. Chicago: University of Chicago Press.

Masica, Colin, P. 1991. *The Indo-Aryan Languages*. Cambridge: Cambridge Univ. Press.

Nespital. H. 1989. Verbal Aspect and Lexical Semantics in Indo-Aryan Languages: The Typology of Verbal Expressions ("Compound Verbs") and their Realation to Simple Verbs. *Studien zur Indologie und Iranistik* 15: 159-96.

Nespital, H. 1997. The Use of Non-Perfective Simple Verbs and of Perfective Verbal Expressions ["Compound Verbs"] in New Indo-Aryan Languages. Grammatical, Lexical and Pragmatic Criteria for Their Selection. *International Journal of Dravidian Lingusitics* 26.1: 39-56.

Neukom, Lukas, and Manideepa Patnaik. 2003. *A grammar of Oriya.* Zürich: Seminar für Allgemeine Sprachwissenschaft der Universität Zürich.

Pandharipande, R. 1990. Serial Verb Construction in Marathi. In Joseph, B. D. and Zwicky A. M (eds.) *When Verbs Collide: Papers from the 1990 Ohio State Mini-Conference on Serial Verbs*. Columbus: Dept. of Linguistics, The Ohio State University. Pp: 178-199.

Pardeshi, Prashant, Kaoru Horie & Shigeru Sato. 2010. An anatomy of the posture verb *basNe* 'sit' in Marathi: A cognitive-functional account. In Newman and Rice (eds). *Experimental and empirical methods.* Stanford: CSLI. 91-107

Pokharel, M. P. 1991. Compound Verbs in Nepali. In *Contributions to Nepalese Studies* Vol. 18. No. 2: 149-173.

Pořízka, Vincenc. 1967-69. On the perfective verbal aspect in Hindi. *Archiv Orientalni*, 35: 64-88, 208-231; 36:233-251; 37: 19-47, 345-364.

Raeside, I. M. P. 1958. The Marathi Compound Verb. *Indian Linguistics* 19: 237-248.

Schiffman, Harold F. 1969. *A Transformational Grammar of the Tamil Aspectual System*. Seattle: University of Washington Department of Linguistics.

Singh, Udaya Narayan, K.V. Subbarao and S.K. Bandyopadhyay. 1986. Classification of Polar Verbs in Selected South Asian Languages. In Bh. Krishnamuti, C. Masica, and A.K. Sinha (eds.) *South Asian Languages: Structure, Convergence and Diglossia*. New Delhi: Motilal Banarsidass. Pp: 244-269.

Singh, Udaya Narayan. 1998. Compound Verbs in Selected South Asian Languages. In Khokhlova, L.V. and Atul Daswani (eds.) *Vaagbhaaratii: Proceedings of the International Conference on South Asian Languages.* Moscow: Institute of Asian and African Studies, Moscow State University. Pp: 152-182.

Southworth, F. C. 1961. The Marathi Verbal Sequences and Their Co-occurrences. *Language* Vol. 37-2: 201-208.

Steever, Sanford. 1993. *Analysis to synthesis: The development of complex verb morphology in the Dravidian languages*. Oxford University Press.

Subbarao, K. V. 1979. Secondary Verbs in Telugu. *International Journal of Dravidian Linguistics* 8.2: 268-276.

Vale, Ramchandra Narayan.1948. *Verbal Composition in Indo-Aryan*. Poona: Deccan College.

Zbavitel, Dušan 1970. *Non-finite Verbal forms in Bengali*. Prague: Czechoslovak Academy of Sciences.

Zeisler, Bettina. 2004. *Relative tense and aspectual values in Tibetan languages: A comparative study.* Berlin: Mouton de Gruyter.

NOTE The term *serial verb* is to be distinguished from *compound verb* or *complex predicate*:

Serial verbs *stack up* several events (often but not always occurring sequentially), in a single clause. For example, Ewe *trɔ dzo*, (lit. turn leave), 'turn and leave'; Hindi *fon uṭhā-kar kahā* (lit. phone pick.up-CONJPART say.PAST), '...picked up the phone and said...'. In Chinese and in

languages of Southeast Asia the direct object of a transitive first verb is the subject of the second verb: *lăo.hŭ yăo-sĭ le zhāng* (lit. tiger bite-die PERF Zhang) 'the tiger bit Zhang to death' where *zhang* is the direct object of *yăo* 'bite' and the subject of *sĭ* 'die'. In the homologous serial verb in Hindi the one who dies would be the tiger, not Zhang. Analogously to prepositions serial verb constructions may be used to introduce an actant:

(1) *Aémmaá   de   sikaá   maá   Kofä*   (Akan, West Africa)
   Amma   take   money   give   Kofi
   'Amma gives Kofi money.'

   Compound verb (also known as *complex predicate*): Here the first verb is the primary, and determines the primary semantics and also the argument structure. The second verb, often called a *vector verb* or *explicator verb*, provides fine distinctions, (usually in speaker attitude or aspect), and carries the inflection (tense / mood / agreement markers). Usually the main verb appears in conjunctive participle form (or, in Hindi and Punjabi, as a bare stem). For example, Hindi: *sattū khā-liyā* lit. parched.grain eat-TOOK, 'ate up the *sattu*' (completive action) versus *bacce.ko khā-ḍālā* lit. child eat-THREW, 'devoured the child' (violent or unwanted action). In these examples, *khā* is the main or primary verb, and *liyā* (TOOK) and *ḍālā* (THREW) are the vector verbs. Both *khā liyā* eat-TOOK and *khā ḍālā* eat-THREW alternate with the corresponding simple verb *khāyā* 'ate' under partly specifiable semantic and pragmatic conditions. For instance, negation often suppresses compound verbs in favor of their non-compound counterparts: *sattū khā liyā* '(X) parched.grain eat TOOK' versus *sattū nahĩ khāyā* '(X) parched.grain not ate'.

   Alternating examples (2a) and (2b) from the Turkic language Tatar translate identically into English even though the compound verb *sat-yp al-d-ym* buy-CP TAKE-Pst-1sg 'I bought' has been replaced by its simple counterpart *sat-t-ym* buy-Pst-1sg 'I bought' in (2b):

(2a) *kitap   satyp   aldym*
   book   buy.CP   TOOK.1sg
   'I bought a book.'

(2b) *kitap   sattym*   (Tatar, Russian Federation)
   book   bought.1sg
   'I bought a book.'

   The difference between serial verbs and compound verbs, then, is that the former use more than one verb either to introduce additional actants or to express more than one action or both while the latter use more than one verb to express a single action with a unvarying set of actants. Compound verbs are very common in northern Indo-Aryan languages like Hindi and Punjabi. They are less common in other Indo-Aryan languages and are also found in Dravidian, Turkic, Korean and Japanese, some Tibeto-Burman languages, some Northeast Caucasian languages, and in Kichwa [a northern form of Quechua]. Serial verbs are found in all of these languages and, in addition to them, are found in Chinese, Mon–Khmer, Tai–Kadai, Kwa, and in many pidgins and creoles (from: http://en.wikipedia.org/wiki/Serial_verb_construction).