Mysteries of V-V Complexes in Japanese

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NINJAL

1. Introduction:
Lexical vs. Syntactic V-V Complexes

Table 1: Major classes of Japanese V-V complexes

<table>
<thead>
<tr>
<th>LEXICAL (MORPHOLOGICAL)</th>
<th>SYNTACTIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>V2 directly attaches to V1, without the mediation of a syntactic complement clause.</td>
<td>V2 selects a syntactic complement clause headed by V1, as in &quot;[complement] V1 V2&quot;, and the two verbs are later combined into a verb in the case of Type 3.</td>
</tr>
</tbody>
</table>

**TYPE 1: Lexical thematic compound verbs**
- **nta-kore**  closed: "to close"
- **ubari-suru**  press: "to press"
- **hatori-suru**  slide: "to slide"
- **takaki-suru**  work: "to work"
- **zukuri-suna**  make: "to make"  

**TYPE 2: Lexical aspeantual compound verbs**
- **ami-agaru**  climb: "to climb"
- **aki-akarau**  bloom: "to bloom"
- **hatori-hakaru**  slide: "to slide"
- **kari-karau**  come: "to come"
- **naturi-karau**  flow: "to flow"  

**TYPE 3: Syntactic compound verbs**
- **hatori-nta-kore**  close: "to close"
- **ami-ami-agaru**  climb: "to climb"
- **aki-aki-akarau**  bloom: "to bloom"
- **hatori-hatori-hakaru**  slide: "to slide"
- **kari-kari-karau**  come: "to come"
- **naturi-naturi-karau**  flow: "to flow"  

**TYPE 4: Syntactic complex verbs**
(N.B. GER=gerundive)
- **take-tekana**  take: "to take"
- **ron-deru**  go: "to go"
- **ron-deru**  go: "to go"
- **ron-deru**  go: "to go"
- **ron-deru**  go: "to go"
- **ron-deru**  go: "to go"
- **ron-deru**  go: "to go"
- **ron-deru**  go: "to go"
- **ron-deru**  go: "to go"
- **ron-deru**  go: "to go"
- **ron-deru**  go: "to go"  

1. Broadly aspeantual **take-te-ku-suru**  take: "to take" read-GER give-law read-GER give-law  
2. Manner of motion **kari-ku-suru**  come: "to come"
I will propose to fine-tune the four-way classification into a more neat system where the lexical and the syntactic components make up a parallel organization, as follows. (Type 3 in Table 3 will be divided into 3A and 3B.)

<table>
<thead>
<tr>
<th>LEXICAL</th>
<th>SYNTACTIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-V compound verbs</td>
<td>V-V complexes</td>
</tr>
<tr>
<td>aspectual (Type 2)</td>
<td>aspectual (Type 3B and Type 4)</td>
</tr>
<tr>
<td>thematic (Type 1)</td>
<td>thematic (Type 3A)</td>
</tr>
</tbody>
</table>

My conclusion for today

How to distinguish between lexical and syntactic complexes

(1) Lexical Integrity Principle

 *Syntactic elements cannot show up inside a word.*

(2) Criteria for the lexical/syntactic distinction

Check whether or not syntactically motivated elements such as passive, causative, honorific, anaphoric pro-forms, light verb constructions, and idioms can occur inside a verb complex, especially in its first position (V1).
(i) If the first verb (V1) can be directly associated with a syntactic element, then the V1-V2 complex is syntactic.

\[ V_1 \text{ syntactic elements} \]\ V2

(ii) Otherwise, it is lexical (or morphological).

\[ *V_1 \text{ syntactic elements} \]\ V2

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### Table 2: Criteria for distinguishing syntactic from lexical V-V complexes

<table>
<thead>
<tr>
<th></th>
<th>Lexical (or morphological)</th>
<th>Syntactic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type 1</td>
<td>Type 2</td>
</tr>
<tr>
<td>A. Passive in V1</td>
<td>OUT</td>
<td>OUT</td>
</tr>
<tr>
<td>B. Honorific in V1</td>
<td>OUT</td>
<td>OUT</td>
</tr>
<tr>
<td>C. Verbal anaphora in V1</td>
<td>OUT</td>
<td>OUT</td>
</tr>
<tr>
<td>D. Light verb constructions in V1</td>
<td>OUT</td>
<td>OUT</td>
</tr>
<tr>
<td>E. Idioms in V1</td>
<td>OUT</td>
<td>OUT</td>
</tr>
</tbody>
</table>
Illustration with passive in V1

**LEXICAL**

Type 1: *[os-are]-aku  *ドアが押され開いた。
*[^push-PASS]-[^open(vi.)]
Type 2: *[am-are]-ageru  *セーターが編まれ上がった。
*[^knit-PASS]-[^finish]

**SYNTACTIC**

Type 3: *[ais-are]-tuzukeru  愛され続ける。
[^love-PASS]-[^continue]
Type 4: *[damas-are-te]-miru  だまされて  みる
[^deceive-PASS-GER]-[^see]

Morphological/syntactic structures

(3) a. Lexical V-V complexes  b. Syntactic V-V complexes

V1 and V2 are directly compounded, because V1 cannot accommodate any syntactic element.

V1 and V2 are fused together at a later stage by a certain mechanism such as Incorporation.
Apart from structures, lexical and syntactic complexes differ in lexical idiosyncrasies and morphological productivity.

(4) Lexical idiosyncrasies

Syntactic V-V complexes (Type 3 and Type 4)

Only the head verbs in V2 are lexically specified. No idiosyncratic restrictions on the verbs in V1. Dictionaries do not list the whole combinations of V1 and V2, hence unlimited productivity.

Lexical V-V compounds (Type 1 and Type 2)

Not only the head verbs in V2 but also the whole combinations of V1 and V2 are specified in dictionaries [i.e. memorized], with limited productivity in individual V2s.

Dual membership:
Some V2s are ambiguous between lexical and syntactic compounds.

(5) a. **oki-wasureru** (put-forget) 置き忘れる

   (i) lexical: ‘leave something somewhere and forget to bring it’ (どこかに置いて、持ってくるのを忘れる)

   (ii) syntactic: ‘forget to put something on a designated place’ (しかるべき場所に置くのを忘れる)

b. **hanasi-kakeru** (speak-hang) 話しかける

   (i) lexical: ‘talk to’ (人に声をかける)

   (ii) syntactic: ‘be about to speak’ (もう少しでしゃべりそうになる)

c. **nori-tukeru** (ride-attach) 乗り付ける

   (i) lexical: ‘drive up to’ (車を玄関に乗り付ける)

   (ii) syntactic: ‘be used to driving’ (乗り物に乗るのに慣れる)
Ordering restriction:
Lexical complex precedes syntactic complex.

(6) a. OK [[lexical] - syntactic]
   [[huri-yami]-kakeru] 雨が降り止みかける
   [[rain-stop]-be.about.to]

   b. *[syntactic] - lexical
      *[[[huri-kake]-yamu] 雨が降りかけ止む
      [[rain-be.about.to]-stop]

2. Two Forms of Verb Concatenation and Their Morphological Status

(7) Clause concatenation 節の接続
   a. Ren'yō verb base (called “adverbal”, “infinitive”, or “neutral 中立形”)
      Ani wa susi o tabe, otooto wa sake o non-da.
      elder.brother TOP sushi ACC eat, younger.brother TOP sake ACC drink-PAST

   b. Gerundive –te
      Ani wa susi o tabe-te, otooto wa sake o non-da.
      elder.brother TOP sushi ACC eat-GER, younger.brother TOP sake ACC drink-PAST

      ‘The elder brother ate suchi, and the younger brother drank sake.’
Morphological concatenation 形態的な（語内部の）接続

(8) Ren’yō verb bases can, but -te gerundive forms cannot occur inside a word, because -te is a functional category (conjunction or inflection).

a. *tabe-mono (eat-thing) ‘food’ 食べ物
b. *tabe-te mono (eat-GER thing) *食べ物

Gerundive -te can appear only on the right-hand edge of a verb. テ形が現れるのは動詞の右端（外側）のみ。

c. *tabe-kake-te (eat-be.about.to-GER) *食べかけて ‘be about to eat (and then …)’

Versatility of ren’yō verb bases in word formation

(9) a. The first element (V1) in V-V compound verbs V+V複合動詞の前項
   tataki-tubusu 叩きつぶす(strike-smash) ‘knock to pieces’

b. The first element in V-N compound nouns V+N複合名詞
   yaki-niku 焼き肉 (broil-meat) ‘broiled meat’

c. The first element in V-A compound adjectives V+A複合形容詞
   musi-atui 煙し暑い (steam-hot) ‘steaming hot’

d. The first element in deverbal nouns 動詞からの派生名詞
   utai-te 歌い手 (sing-suffix) ‘singer’

ew. Conversion to a noun 動詞からの転成名詞
   tasuke 助け ‘help’

f. Compounds of converted nouns 転成名詞を含む複合語
   kasi-kari 貸し借り (lending-borrowing) ‘borrowing and lending’,
   hito-dasuke 人助け (person-help) ‘a help’
Division of labor

- Ren'yō (or neutral) verb bases participate in all kinds of word formation involving verbs (and can also be used in clausal coordination).

- Gerundive -te is used only at a phrasal or clausal level.

Table 4 shows a fairly comprehensive list of auxiliary-like verbs that make up verb complexes with -te gerundive verbs.

→ Yo Matsumoto’s talk

<table>
<thead>
<tr>
<th>Form</th>
<th>Original meanings</th>
<th>Aspectual meanings</th>
</tr>
</thead>
<tbody>
<tr>
<td>(tabe-te) oku</td>
<td>put</td>
<td>have eaten (as anticipated)</td>
</tr>
<tr>
<td>(tabe-te) simau</td>
<td>put away</td>
<td>have eaten (unwittingly)</td>
</tr>
<tr>
<td>(tabe-te) miru</td>
<td>see</td>
<td>try eating/tasting</td>
</tr>
<tr>
<td>(tabe-te) miseru</td>
<td>show</td>
<td>eat (and show off)</td>
</tr>
<tr>
<td>(tabe-te) yaru</td>
<td>I give to someone</td>
<td>do someone a favor</td>
</tr>
<tr>
<td>(tabe-te) ageru</td>
<td>I give to someone</td>
<td>do someone a favor</td>
</tr>
<tr>
<td>(tabe-te) kureru</td>
<td>someone gives me</td>
<td>do (me) a favor</td>
</tr>
<tr>
<td>(tabe-te) morau</td>
<td>I receive from someone</td>
<td>(I) receive a favor</td>
</tr>
<tr>
<td>Hana ga (sai-te) kuru</td>
<td>come</td>
<td>change gradually</td>
</tr>
<tr>
<td>Hana ga (sai-te) iku</td>
<td>go</td>
<td>change gradually</td>
</tr>
<tr>
<td>(tabe-te) iru</td>
<td>(animate) be</td>
<td>is eating, have eaten</td>
</tr>
<tr>
<td>(tabe-te) aru</td>
<td>(animate) be</td>
<td>have eaten</td>
</tr>
</tbody>
</table>
Morphological wordhood 語としての資格

(11) Insertion of focus particles is often used as a test to identify the word status of a V-V complex.

a. Gerundive complex verb:
   tabe-te wa mi-ta 食べてはみた
eat-GER PARTICLE try-PAST

b. Compound verb:
   *tabe wa kake-ta *食べは掛けた
   eat PARTICLE be.about.to-PAST

However, participle insertion is not effective in dividing an agglutinated verbal sequence into words.

(12)

Particles cannot be inserted between any two elements above. It is counterintuitive to conclude from this that the long stretch of elements in blue constitutes a morphological word.
Nominalization by the suffix –kata ‘way’


-Kata nominalizes a whole vP, regardless of whether its verb is simplex or compound.

岩の 落ち方
iwa no [oti]-kata
boulder GEN [fall]-way

(15) a.  iwa no [N[v kuzure-oti]-kata] (lexical V-V)
boulder GEN [collapse-fall]-way
‘the way the boulder fell down’
b.  ame no [N[v huri-dasi]-kata] (syntactic V-V)
rain GEN [fall-start]-way
‘the way it started raining’

However, the suffix -kata does not attach to syntactic clauses.

(15) c. *iwa no [N[vp kuzure, dosunto oti]-kata]
boulder GEN [collapse with.a.thud fall]-way
‘the way the boulder collapsed and fell down with a thud’

d. Gerundive-te complexes
*okane no [tukat-te simai]-kata
money GEN [use-GER put.away]-way
‘the way you have spent all your money’
Honorific vs. polite verbs

(16) a. Honorific verbs 尊敬
tabe-hari-kata (Osaka-Kyoto dialect)
eat-HONORIFIC-way ‘the way (he) eats’

b. Polite verbs 丁寧
*tabe-masi-kata
eat-POLITE-way

Phrasal boundary

(17) tabe hazime hari masi-ta
eat begin HONORIFIC POLITE-PAST
compound word syntactic auxiliary

3. **Lexical** V-V Compounds:
   Thematic (Type 1) vs. Aspectual (Type 2)

- The term thematic means “thematic (or semantic) roles” in argument structure.
- *In my database of over 2,700 lexical compound verbs, thematic compounds (Type 1) account for about 60%, and aspectual compounds (Type 2) about 30%, with the remaining 10% being lexicalized or grammaticalized as one words.

**Online database**

- Online database of more than 2,700 V-V compound verbs at NINJAL’s website.
- English, Chinese, and Korean translations are forthcoming in January or February next year.

http://vvlexicon.ninjal.ac.jp/db/
● Heuristic guideline
Try to see if a given lexical compound verb can be paraphrased by using the formula “V1-te V2”.

Type 1とType 2を区別する目安
「V1テV2」と言い換えられるかどうか。

(18) a. **Type 1: Thematic V-V compound verbs can be paraphrased with “V1-te V2”**.
osi-akeru (push-open [vt.]) ≠ osi-te akeru ‘push and open, push open’ 押し開ける～押して開ける
nage-ireru (throw-put.in) ≠ nage-te ireru ‘throw and put in, throw in’ 投げ入れる～投げて入れる

(18) b. **Aspectual V-V compound verbs cannot be paraphrased with “V1-te V2”**.
雨が降りしきる huri-sikiru (fall-continue) ‘(rain or snow) fall incessantly’ ≠ しきって降る *hut-te sikiru.
Instead, it is paraphrasable as 頻りに降る sikiri ni huru (do-repeatedly DAT fall) ‘fall incessantly’ by reversing the order.

花が咲き競う (hana ga) saki-kisou (bloom-compete) ‘(flowers) be in full blossom’ ≠ 咲いて競う *sai-te kisou.
Instead, it can be plausibly paraphrased plausibly as 競って咲く or 競うように咲く kisot-te saku ‘bloom competitively’ by reversing the order of V1 and V2.

晴れ渡る hare-wataru (be.cloudless-go.over) ‘(sky) be clear all over’ ≠ 晴れて渡る *hare-te wataru
Instead, plausibly paraphrased as 隅々にまで渡って晴れる sumizumi ni watat-te hareru (go.through.the.sky be.cloudless) ‘be clear all over the sky’.
The paraphrasability with $V_1$-te $V_2$ is attributed to how the argument structure of a compound verb is composed.

(19) In Type 1 (thematic compound verbs), the argument structure of a clause is determined jointly by $V_1$ and $V_2$, with $V_1$ modifying the head $V_2$.

□ 呼び集める yobi-atumeru (call-gather) ‘call together’
   yobi (call) + atumeru (gather)
Arg. Str. <agent1, theme1> <agent2, theme2 [pl.], goal>
argument structure unification →
   yobi-atumeru <agent1=2, theme1=2 [pl.], goal>

(20) **Semantic subclasses of Type 1 compound verbs**
(Kageyama 1993, Matsumoto 1996, Yumoto 2005)
   a. Means of action: $V_2$ BY $V_1$-ing [common]
   b. Manner of motion or change: $V_2$ WHILE $V_1$-ing
      [common]
   c. Cause-result: $V_2$ FROM $V_1$-ing [limited]
   d. Purpose: $V_2$ WITH A VIEW TO $V_1$-ing [rare]
   e. Coordination (dvandva): $V_1$ and $V_2$ [limited]
The peculiar semantic interpretation of Type 2 compound verbs

(21) 花が咲き乱れる
   Hana ga saki-midarēru.
   flowers NOM bloom-be.confused
   ‘Flowers are blooming in great (lit. confused) profusion.’

≡ 花が入り乱れて咲く
   Hana ga iri-midare-te saku.
   flowers NOM be.confused-GER bloom

(22) Form-meaning mismatch in Type 2 (aspectual) compound verbs
Type 2における形と意味のミスマッチ

The argument structure of Type 2 compound verbs is determined by the first verb (V1), contrary to the morphological head in V2. The second verb (V2) does not have argument structure but only supplies a variety of aspectual meanings that depict how the event in V1 unfolds. As a result, these compounds deviate from the ordinary form-meaning iconicity and call for reversed semantic interpretation.

Form-meaning mismatch

morphology:  |  
| saki | midarēru |
| bloom’(e, flowers) | be.confused’(e) |

semantic interpretation:  |  
| (iri-)midare-te | saku |
| ‘in a confused state’ | bloom’(e, flowers) |
Table 4 shows representative semantic classes of lexical aspecual compound verbs.

<table>
<thead>
<tr>
<th>Temporal aspect</th>
<th>Example Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. completive</td>
<td>hari-yuuru (ntr.) ‘stop falling, said of snow and rain’, kaki-aguru (vtr.) ‘finish writing’, kaki-aguru (vtr.) ‘writing is finished’, ni-tamuru (vtr.) ‘boil down’, kasi-suru ‘wipe out’</td>
</tr>
<tr>
<td>b. incomplete</td>
<td>i-suru ‘stop speaking halfway’</td>
</tr>
<tr>
<td>c. result</td>
<td>ne-kому ‘fall asleep completely’, komari-kaerusu ‘be completely at a loss’, sugamari-kaerusu ‘become completely silent’, saki-midaru ‘bloom in profusion’, oitsukuku-harasu ‘be perfectly composed’</td>
</tr>
<tr>
<td>d. inceptive</td>
<td>awe-somaru ‘begin to dawn’, kaki-akosu ‘start writing’</td>
</tr>
<tr>
<td>e. progressive</td>
<td>hari-sikuru ‘rain fall incessantly’, naki-karasu ‘cry all day’</td>
</tr>
<tr>
<td>f. iterative</td>
<td>hasiru-kaerusu ‘dig again’, tokai-kaerusu ‘use repeatedly’, tate-kaerusu ‘rebuild’, ti-narihasu ‘go on day by day’</td>
</tr>
<tr>
<td>h. ineffective</td>
<td>kasi-sikuru ‘hesitate to lend’, noki-mawasu ‘do not make expected progress’, noki-sikuru ‘be unable to find’, kiki-tigaru ‘hide improperly’, kiki-sikuru ‘put on the wrong shoes’</td>
</tr>
<tr>
<td>i. reciprocal</td>
<td>i-sawasuru ‘happen to be at the same place’, kiki-kaerusu ‘ask back’, tokai-wakeleru ‘use different things according to the needs’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spatial aspect</th>
<th>Example Verbs</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Social (interpersonal) aspect</th>
<th>Example Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>mooi-ageru ‘say to a respectable person’, mi-kusanu ‘look down upon’, mooi-tawasu ‘say to a person of lower status’, kasi-saguru ‘public institution lend to private sector’</td>
<td></td>
</tr>
</tbody>
</table>

(23) Semantic and morphological characteristics of the second verbs (V2) in Type 2 aspecual compounds

a. To add to the conceptual meanings of V1 a wide variety of meanings related to lexical aspect or Aktionsarten;
b. To have a broad semantic coverage of not only temporal aspect but also spatial aspect (as in hare-wataru (be.cloudless-extend all.over) ‘The clear state extends all over the sky’) and interpersonal aspect (as in mooi-ageru (say-give.to.a.person.of.higher.status) ‘say deferentially’);
c. To have developed peculiar abstract and metaphorical meanings that are not found in their usage as independent verbs;
d. To have no argument structure or case (perhaps except for social and spatial aspect);
e. To be highly selective about the verbs in V1 with which they occur;
f. (In many cases) to have been grammaticalized to bound suffixes and have no independent usage.
Dual membership: Some head verbs are ambiguous between thematic and aspectual compounds.

(24) a. (Type 1) Thematic -komu 〜込む: <goal> 二格を取る
   Booru o gooru ni keri-komu
   'kick a ball into the goal'
   Gunsyuu ga mise ni abare-kon-da.
   'The mob stormed into the shop.'

b. (Type 2) Aspectual -komu 〜込む: ‘do the act of V1 amply’ 十分に行うという意味
   Sensyu wa mainiti hasiri-kon-da.
   'The athletes get ample running practice every day.'

Ordering relation between Type 1 and Type 2

(27)

c. OK[[Type 1] - Type 2]
   [[ne-sizumari]-kaeru]
   [[sleep-get.silent]-completely]

d. *[Type 2] – Type 1]
   *[[ne-kaeri]-sizumaru]
   [[sleep-completely]-get.silent]

This hierarchical restriction falls out naturally from the organization of semantic/cognitive structure where aspect is supposed to add semantic embellishment to thematic content, but not vice versa.
4. Subtypes of Type 3 Syntactic V-V Compounds: Aspected and Thematic

Table 5: Aspected compound verbs in syntax

<table>
<thead>
<tr>
<th>Aspected notions</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inception</td>
<td>V-hakersu (hang, vt.) ‘be about to V’, V-dasu (take out, vt.) ‘begin to V’, V-tasimeru (begin, vt.) ‘begin to V’, V-hakaru (set about, vi.) ‘set about V-ing’</td>
</tr>
<tr>
<td>completion</td>
<td>V-eru (finish, vi.) ‘finish V-ing’, V-owaru (end, vi.) ‘stop V-ing’, V-nashu (exhaust, vt.) ‘V exhaustively’, V-ki (cut, vt.) ‘V completely’, V-nasu (set through, vi.) ‘V to the end’, V-makuru (roll out, vi.) ‘V to the end’, V-katsu (come to an end, vi.) ‘V utterly’</td>
</tr>
<tr>
<td>excessiveness</td>
<td>V-sogiru (go past, vi.) ‘V excessively’</td>
</tr>
<tr>
<td>Retrial</td>
<td>V-masuru (repair, vt.) ‘V again to obtain a desired result’</td>
</tr>
<tr>
<td>repetition, habituation</td>
<td>V-takuru (attach, vt.) ‘be used to V-ing’, V-kereru (get accustomed, vi.) ‘be accustomed to V-ing’, V-ki (get weary, vi.) ‘get weary of V-ing’</td>
</tr>
<tr>
<td>reciprocity</td>
<td>V-a (meet, vi.) ‘V reciprocally’</td>
</tr>
<tr>
<td>likelihood</td>
<td>V-uru or V-uru (obtain) ‘be likely to V’</td>
</tr>
<tr>
<td>social aspect</td>
<td>(dialectal) V-haru ‘A respectable person does an action.’</td>
</tr>
</tbody>
</table>

Not all syntactic compound verbs are aspectual. Some head verbs influence the determination of the objects in complement clauses.

Table 6: Examples of thematic compound verbs in syntax

<table>
<thead>
<tr>
<th>V1-eru</th>
<th>literal meaning</th>
<th>derived aspectual meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘finish, complete’</td>
<td>‘finish doing V1, so that the object is done’</td>
<td></td>
</tr>
<tr>
<td>V1-naosu</td>
<td>‘fix, repair’</td>
<td>‘do V1 again, so that the object is in a fixed state’</td>
</tr>
<tr>
<td>V1-wasureru</td>
<td>‘forget’</td>
<td>‘forget to do V1, so that the object is left forgotten’</td>
</tr>
<tr>
<td>V1-nakusu</td>
<td>‘exhaust’</td>
<td>‘do V1 thoroughly, so that the object is exhausted’</td>
</tr>
</tbody>
</table>

Kageyama (1993)
V2 tukusu ‘exhaust’ contribute to locative alternation.

(28) a. Masao wa kabe ni posutaa o hat-ta.
    Masao TOP wall DAT poster ACC paste-PAST
‘Masao pasted the posters onto the wall.’

   b. *Masao wa posutaa de kabe o hat-ta.
    Masao TOP poster WITH wall ACC paste-PAST
‘Masao pasted the wall with posters.’

(29) a. Masao wa kabe ni posutaa o hari-tukusi-ta.
    Masao TOP wall DAT poster ACC paste-exhaust-PSAT
‘Masao pasted all the posters onto the wall.’
   ⇒ The posters were used up.

   b. Masao wa posutaa de kabe o hari-tukusi-ta.
    Masao TOP poster WITH wall ACC paste-exhaust-PAST
‘Masao pasted the entire wall with posters.’
   ⇒ The walls were covered up.

(Fukui, Naoki, Shigeru Miyagawa, and Carol Tenny. 1985)

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Passive on V2

● Aspectual verbs do not normally passivize.

(30) a. Watasi wa siranai otoko ni damasi-are-kake-ta. (passive on V1)
    I TOP strange man by deceive-PASS-be/about-to-PST
‘I was about to be deceived by a stranger.’

   b. *Watasi wa siranai otoko ni damasi-kake-rare-ta. (passive on V2)
    I TOP strange man DAT deceive-be/about-to-PASS-PST

(31) a. Watasi wa titi ni sikari-are-nari-te i-ru. (passive on V1)
    I TOP father by scold-PASS-be/used-GRD be-NONPST
‘I am used to being scolded by my father.’

   b. *Watasi wa titi ni sikari-nare-rare-te i-ru. (passive on V2)
    I TOP father by scold-be/used-PASS-GRD be-NONPST
However, the head verbs in Table 6 can be passivized (long distance passive).

(32) a. 鉱山が掘り尽くされた
Koozan ga  
mine NOM  
horitukus-are-ta.
dig-exhaust-PASS-PAST  'The mine was dug up and exhausted.'

b. 契約書が書き直された
Keiyakusyo ga  
contract NOM  
kaki-naos-are-ta.
write-do.again-PASS-PAST  'The contract was rewritten and fixed.'

c. 出し忘れられた手紙が机の上にある
Dasi-wasure-rare-ta tegami ga  
post-forget-PASS-PAST letter NOM  
tuke no ue ni aru.
desk GEN top DAT be  'There is a letter left on the desk that he forgot to post.'

(Kageyama 1993)

This means that the object somehow serves as the object of V2.

a là Baker’s (1989) double theta-role assignment.

(33) Double theta marking

[koozan o   hori]  tukusu
mine ACC  dig  exhaust
Double theta-marking is supported by unexpected examples of double passives actually attested on the Internet.

(34) a. 鉱脈が掘られ尽くされた。
   kōmyoku ga koro-are-tukus-are-ta
   lode NOM dig-PASS-exhaust-PASS-PAST
   ‘The lode has been dug up exhaustively.’
   http://fukinya.blog117.fc2.com/blog-entry-94.html
b. この問題はあちこちで語られ尽くされている。
   kono mondai wa ati-koti de kata-rare-tukus-are-te iru.
   this issue TOP there-there LOC discuss-PASS-exhaust-PASS-GER be
   ‘This issue has been discussed exhaustively.’
   http://www1.cinem.ne.jp/~nackham7/fujii.html
c. 使われ切られる tukaw-are-kir-are-ru (use-PASS-finish-PASS) ‘be used up’
d. 避けられ始められる sake-rare-hazime-rare-ru (shun-PASS-begin-PASS) ‘begin to be shunned’
e. 責められ続けられる seme-rare-tuduko-rare-ru (blame-PASS-continue-PASS)
   ‘continue to be blamed’

(35) SUMMARY:

Syntactic V-V compound verbs, like lexical ones, fall into two types: thematic (Type 3B) and aspectual (Type 3B).
Interestingly, these two classes also obey the same stacking restriction as the two classes in the lexical domain. (Examples omitted.)

(36) Stacking constraint on Type 3A and Type 3B (cf. (27) for lexical compounds)
OK [Type 3A (thematic)]-Type 3B (aspectual)
* [Type 3B (aspectual)]-Type 3A (thematic)

Again, this hierarchical restriction is a natural reflection of the organization of semantic/cognitive structure.
5. Parallel Organization in the Lexicon and Syntax

(37) Parallel organization

<table>
<thead>
<tr>
<th>LEXICAL</th>
<th>SYNTACTIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>aspectual (Type 2)</td>
<td>aspectual (Type 3B and Type 4)</td>
</tr>
<tr>
<td>thematic (Type 1)</td>
<td>thematic (Type 3A)</td>
</tr>
</tbody>
</table>

☞ To summarize, Lexical and syntactic V-V complexes, taken together, are hierarchically ordered as follows:

(38)

<table>
<thead>
<tr>
<th>SYNTACTIC</th>
<th>LEXICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>aspectual (Type 3B and Type 4)</td>
<td>aspectual (Type 2)</td>
</tr>
<tr>
<td>thematic-aspectual (Type 3A)</td>
<td>thematic (Type 1)</td>
</tr>
</tbody>
</table>

Higher in structure

Lower in structure

In this organization, Type 2 poses a puzzle to solve: Why should an aspectual class of compounds intervene between Type 1 and Type 3A?

6. Where Do Type 2 Compound Verbs Come from?

Type 2 complexes (though not morphological compounds) already existed in Old Japanese.

(Frellesvig et al. 2010)

(39) b. OJ auxiliary verbs corresponding to current lexical aspectual compound verbs

  *tug* - 続ぐ ‘continue’, *sugus* - 過ごす ‘put beyond’,
  *pate* - 果てる ‘end’, *sik* - しきる ‘spread, (occur frequently)’
How Type 1 and Type 2 compound verbs are translated in natural English (according to the compound verb database)

(40) Typical English translations for Type 1 compound verbs: Word-by-word translation generally works.

a. korogari-otiru (roll-fall) 岩が氷を転がり落ちた。
   lwa NOM gake ACC korogari-otir-ta.
   ‘The boulder tumbled down the cliff.’

b. arai-nagasu (wash-let.flow) 彼女はシャワーで髪の汚れを洗い流した。
   kano wa kami no yogore o arai-nagas-ta.
   ‘She washed away the grime from her hair.’

(41) On the other hand, Type 2 compound verbs, which express a given situation descriptively and rhetorically in a step-by-step manner, tend to be translated in English in such a way that only a resulting state is specified, omitting the detailed manner of action that accompanies it.

a. are-kuru 對狂う
   umi ga are-kurut-ta.
   ‘The sea was very stormy.’

b. sae-watari 吹き渡る
   kyoo wa atama ga sae-watari-te iru.
   ‘My mind is especially sharp today.’

c. kiki-narere 聞き慣れる
   kiki-nare-ta merodii
   ‘A familiar melody’

d. kiki-hurumi 聞き苦す
   kiki-hurumi-ta zyoku
   ‘A corny joke’

e. sitate-agaru 仕立て上げる
   suu Nom sitate-agat-ta.
   ‘The suit is ready.’
This might be attributed to different ways of expression between English and Japanese.

▶ Preferred ways of expression
- Yoshihiko Ikegami: Japanese is a BECOME-type language and English a DO-type language.
- Kageyama: Japanese is a PROCESS-FOCUS language and English a RESULT-FOCUS language.

But this cannot explain why Japanese uses compound verbs instead of adverbial phrases or some other ways of expression.

▶ Talmy’s typology of verb-framed vs. satellite-framed languages, might be a contributory factor, but it alone would predict the wrong order of two verbs, as in (42).

(42) a. *tate-naraberu 並べ立てる  *立て並べる (cf. 並べ立てる narabe-tateru ‘list one by one’)
    give.one.by.one-list
  b. *watari-hareru 渡り晴れる (cf. 晴れ渡る hare-wataru ‘be clear all over’)
    go.across-be.clear
  c. *sikiri-huru 頻り降る (cf. 降り頻る huri-sikiru ‘fall incessantly’)
    occur.frequently-fall

Reversed order

(43) 頻く “Siku” in classical Japanese was used in the modifier position of compound words. (Kadokawa Old Japanese Dictionary 角川古語辞典)

siki-huru 頻き降る (occur.frequently-fall) cf. huri-sikiru 降り頻る
siki-naku 頻き鳴く (occur.frequently-sing) cf. naki-sikiru 鳴き頻る
Predicate realization: How to realize semantic predicates in syntax.

(44) For example, how can the semantic concepts, *fuss* (e, agent) & *violently* (e), be realized in syntax?

a. Normal realization of *violently(e)* as an adverb ‘violently’.
   激しく騒ぐ hagesiku sawagu (violently fuss) ‘fuss about’

b. Iconic realization of *violently(e)* as the first member and *fuss* as the head verb of a compound verb. Because the predicate that is equipped with argument structure is normally realized as the main verb.
   *立て騒ぐ* *tate-sawagu* (do.violently-fuss)

c. Aberrant realization of *fuss* in the V1 position and *violently(e)* in the head (V2) position of a compound verb.
   騒ぎ立てる sawagi-tateru (fuss-do.violently)

(45) Reversal of Figure-Ground alignment in Type 2 compound formation

An adverbial notion (semantic Ground) is realized as the head in V2 (morphological Figure) in a Type 2 compound verb, whereas the main semantic predicate (semantic Figure) is realized as a modifier verb in V1 (morphological Ground).

This gives rise to the form-meaning mismatch:

<table>
<thead>
<tr>
<th>morphology:</th>
<th>saki</th>
<th>midareru</th>
</tr>
</thead>
<tbody>
<tr>
<td>bloom (e, flowers)</td>
<td>be confused (e)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>semantic interpretation:</th>
<th>(iri-)midarete</th>
<th>saku</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘in a confused state’</td>
<td>bloom (e, flowers)</td>
<td></td>
</tr>
</tbody>
</table>
Such a reversal is a rather common phenomenon in Japanese morphology.

a. phonological reversal
   種 tane ‘seed’ → ネタ neta ‘material for a talk’

b. semantic reversal
   置き手紙 oki-tegami (leave-letter) ‘a memo left by someone’
   → ‘leaving a memo’

c. morphological reversal
   太っ腹 huto-ppara (fat-heart) ‘big-hearted, generous’ =
   Hara ga hutoi. (heart NOM fat)
   無関心 mu-kansin (null-interest) ‘uninterested’ =
   Kansin ga nai. (interest NOM be.null)

(Kageyama 2010)

The reversal in Type 2 compound verbs is presumably aided by the agglutination schema.

(47) Agglutination schema:
higher in hierarchical structure
thematic verb – aspectual auxiliary – tense – modal

Relevant to the formation of Type 2 compound verbs

Irrelevant to lexical compounds
Hypothesis and conclusion

**Hypothesis:** The agglutination schema in syntax was extended to the lexical domain in and after the Heian period, presumably motivated by a rhetorical need to produce expressive and powerful literary work. Under this hypothesis, the parallel organizations of the compounding system in the lexicon and in syntax emerged from the fortified agglutinative character of Japanese in syntax and its extension to the lexical domain.

**Conclusion:**
The compounding systems in the lexical and syntactic domains have a parallel organization. This observation could not be easily handled either by “strong lexicalism” or by “strong syntacticism”. Rather, the Japanese facts are in line with a theory of parallel architecture grammar like Jackendoff (2010) or Kageyama (1996).