Two syntactic positions for English Aspectual Verbs

Shin Fukuda
University of California, San Diego
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University of California, Berkeley


   ▪ Subjects of aspectual verbs can be non-thematic (i.e. raising):

   (1) a. It began to rain. (the weather it)
b. There began to be commotion. (the expletive there)
c. Head began to be paid to urban problems.
d. Headway began to be made toward a solution. (idiom chunks)

   (2) a. The noise began to annoy Joe.
b. Joe began to be annoyed by the noise. (active passive synonymy)

   ▪ Subjects of aspectual verbs can be thematic (i.e. control):

   (3) a. I tried [Δ, to begin to work].
b. I forced Tom [Δ, to begin work]. (embedded under a control verb)

   (4) a. Begin to work! b. #Seem to work! (imperative formation)

   ➢ Aspectual verbs do not select their subjects (Fischer & Marshal 1969, Newmeyer 1975, Freed 1979, Brinton 1988)

   (5) a. John asked him to listen/#hear
b. John began to listen/hear.
c. John asked him to begin to listen/#hear.

   ▪ But the imperative fact (4) is puzzling under a pure raising analysis.

1.1 An alternative: the dual position analysis

✓ English aspectual verbs do not assign theta-roles to their subjects.
✓ English aspectual verbs occupy two positions, above and below vP (H-Asp and L-Asp)\(^1\)
✓ The difference is visible in the morphology and syntax: the complement of H-Asp (vP) is realized as infinitive and the complement of L-Asp (VP) is realized as gerundive.

(6) a. Bill started to run. b. Bill started running.

<table>
<thead>
<tr>
<th>TP</th>
<th>TP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill</td>
<td>Bill</td>
</tr>
<tr>
<td>T'</td>
<td>T'</td>
</tr>
<tr>
<td>H-AspP</td>
<td>H-AspP</td>
</tr>
<tr>
<td>start</td>
<td>start</td>
</tr>
<tr>
<td>vP</td>
<td>vP</td>
</tr>
<tr>
<td>v</td>
<td>v</td>
</tr>
<tr>
<td>L-AspP</td>
<td>L-AspP</td>
</tr>
<tr>
<td>running</td>
<td>running</td>
</tr>
</tbody>
</table>

✓ English aspectual verbs in these two positions have different structural relations with the external argument, which affect their interpretations. ➢ the alleged ambiguity

Outline:

✓ provide arguments for the dual position analysis for English aspectual verbs.
✓ propose an account for the imperative fact based on the proposed analysis.

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\(^1\) I assume that external arguments are not arguments of verbs but introduced as the specifier of a projection of a functional head (i.e. v) (Kratzer 1994, 1996, Chomsky 1995, and many others).
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2. Arguments for the two positions for English aspectual verbs

2.1 Complement selection
- Some English aspectual verbs take either infinitive or gerundive, while other can only take gerundive.
- Under the proposed analysis, the aspectual verbs that can appear in both positions take either infinitive or gerundive, while ones that can only be L-Asp only take gerundive.

(7) The complement selection

<table>
<thead>
<tr>
<th></th>
<th>Infinitive</th>
<th>Gerundive</th>
<th>Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>begin</td>
<td>✓</td>
<td>✓</td>
<td>H- or L-Asp</td>
</tr>
<tr>
<td>start</td>
<td>✓</td>
<td>✓</td>
<td>H- or L-Asp</td>
</tr>
<tr>
<td>continue</td>
<td>✓</td>
<td>✓</td>
<td>H- or L-Asp</td>
</tr>
<tr>
<td>keep</td>
<td>✗</td>
<td>✓</td>
<td>L-Asp</td>
</tr>
<tr>
<td>stop</td>
<td>✗</td>
<td>✓</td>
<td>L-Asp</td>
</tr>
<tr>
<td>finish</td>
<td>✗</td>
<td>✓</td>
<td>L-Asp</td>
</tr>
</tbody>
</table>

(8) a. H-Asp (begin, start, continue, cease) b. L-Asp (begin, start, continue, cease, keep, stop, finish)

2.2 The complements of the aspectual verbs are as large as vP.


(9) a. Yesterday, John decided to leave tomorrow.
   b. Today, John hopes to win someday.

(10) a. ??Yesterday, John began to leave tomorrow.
    b. ??Today, the law ceased to have its effect tomorrow.

- Aspectual verbs' complements cannot encode grammatical aspect (Akmajian, Steele, and Wasow 1979).

(11) a. *John began [Progressive being running down the road].
    b. *John began [Perfective to have finished his homework].

(12) a. I will try [Perfective to have finished the work] by the time….
    b. We will let him [Progressive be putting his clothes back on] when….

✓ The complements of aspectual verbs can only be as large as vP.

2.3 Infinitive is larger than gerundive

- Range of interpretation: Gerundive is more limited than infinitive with respect to a range of possible interpretations (Bolinger 1968, Freed 1979, Breton 1988).
- States are often unnatural with gerundive:

(13) a. The problem ceased to exist/*existing
    b. Nora began to know/*knowing right from wrong.

- Gerundive forces a single event reading, while infinitive can have ‘a series of events’ reading:

(14) a. That continues/never ceases to amaze/??amazing me.
    b. That students continued to fall asleep/??falling asleep in my class.

2 See also Wurmbrand (2006, 2007) for arguments that English infinitives do not have tense even when they have the ‘unrealized future’ reading.
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- **Adverb interpretations:** Infinitive is compatible with the ‘higher’ readings of ambiguous adverbs, but gerundive is not:

(15) a. …found everyone around me grew quiet as I began *stupidly to say* what I really think. ³ ➔ speaker-oriented only or ambiguous

b. ….found everyone around me grew quiet as I began *stupidly saying* what I really think. ➔ manner only or strongly preferred.

- **Infinitive (vP) has a larger capacity syntactically and semantically than gerundive (VP)**

2.4 Scope of quantifier subjects

- Raising predicates interact with quantifiers (May 1985):

(16) Someone from NY is likely to win in the lottery
   i) someone > be likely (specific)
   ii) be likely > someone (existential)

- **A similar ambiguity is expected with H-Asp,** but not with L-Asp.

(17) a. Someone from NY started to win the lottery. (infinitive = H-Asp)
   i) someone > start (specific) ✓
   ii) start > someone (existential) ✓

b. Someone from NY started winning the lottery. (gerundive = L-Asp)
   i) someone > start (specific) ✓
   ii) start > someone (existential) ??

(18) Summary:

<table>
<thead>
<tr>
<th></th>
<th>Infinitive</th>
<th>Gerundive</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘future tense’ (2.2)</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>grammatical aspect  (2.2)</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>stative verbs (2.3)</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>ambiguous adverbs (2.3)</td>
<td>ambiguous</td>
<td>manner only/preferred</td>
</tr>
<tr>
<td>scope of ‘someone’ (2.4)</td>
<td>ambiguous</td>
<td>specific preferred</td>
</tr>
</tbody>
</table>


3 Further support from other languages

- **The dual position analysis for aspectual verbs in other languages**


- **Long passive:** a passivization of an embedded object with the passive morpheme attached only to the matrix predicate:

(19) \[
\text{NP}_1 \quad \text{Matrix Verb+Passive [embedded verb} \quad t_i \quad]\]

- **Japanese:** one (*owar ‘finish₁’*) only allows for an embedded passive (20a), another (*oe ‘finish₂’*) only long passive (20b):

(20) a. Rombun-ga \[ t_i \text{ kak } \text{-are}\text{-owar} \quad (*\text{-are}) \quad \text{-ta} \quad \text{paper-NOM} \quad \text{[t}_i \text{ write-PASS]-finish}_1 \quad (*\text{-PASS}) \quad \text{-PERF} \]
   ‘That paper finished being written.’ (embedded passive only)

b. Rombun-ga \[ t_i \text{ kaki } (*\text{-are}) \text{ oe } \quad \text{-rare }\quad \text{-ta} \quad \text{paper-NOM} \quad \text{[t}_i \text{ write (*-PASS) finish}_2 \quad -\text{PASS} \quad -\text{PERF} \]
   ‘That paper finished being written.’ (long passive only)

- Two others, *hajime* ‘begin’ and *tsuzuke* ‘continue’, allow for both:

(21) a. Rombun-ga \[ t_i \text{ kak } \text{-are} \quad *\text{-hajime/tsuzuke} \quad -\text{ta} \quad \text{paper-NOM} \quad \text{[t}_i \text{ write-PASS]-begin/continue} \quad \text{-PERF} \]
   ‘That paper began/continued to be written.’ (embedded passive)

b. Rombun-ga \[ t_i \text{ kaki } \text{hajime/tsuzuke} \quad \text{-rare }\quad \text{-ta} \quad \text{paper-NOM} \quad \text{[t}_i \text{ write begin/continue} \quad -\text{PASS} \quad -\text{PERF} \]
   ‘That paper began/continued to be written.’ (long passive)

**Solution:** Aspectual verbs can appear either below or above the position for the passive morpheme (i.e. vP or VoiceP) (Wurmbrand 2001, Cinque 2003, Fukuda 2006)
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(22) a. H-Asp = only embedded passive  b. L-Asp = only long passive

Japanese aspectual verbs head functional projections, aspect phrases (Travis 1991), in two different positions (Fukuda 2006).

- Long passive in English?
- long passive is predicted to be possible with L-Asp.

(23) a. When the pies and cakes were finished baking, it was about…
    b. Defendant waited until the sheets were finished washing and …
    c. The RV-9A was finished painting last Sunday.

There are apparent cases of long passive with *finish*.

4 http://www.allairevillage.org/TradesandCrafts/Baking.htm
6 http://www.avsim.com/cgi-bin/news/mainpage/arc64.shtml
7 There are several curious restrictions to long passive in English which I leave for future research. First, it is available only with *finish*, not with other L-Asp verbs.

(i) These cakes were finished/*continued/*began/*stopped baking.

Second, the embedded event must be durative with an ‘affected’ internal argument.

(ii) a. ??The plates were finished breaking. (not durative & affected)
    b. ??These movies were finished watching (durative & non-affected)
    c. These cakes were finished baking (durative &affected)

4. Imperative
How can the aspectual verbs be compatible with imperative if they do not assign theta-roles to their subjects?

- With L-Asp, the subject is identified with ‘L-Asp+VP’ complex:
  - Bill + [L-Asp + VP] = ‘Bill started running.’

(24) a. VP  b. L-AspP  c. v’  d. vP
    run  start  v  start running
    L-Asp  VP  v  L-AspP
    run  to run  to run
    Bill  v’  Bill  v’

- With H-Asp, the subject is identified with vP before an aspectual verb is introduced:
  - H-Asp + [Bill + VP] = ‘Bill started to run.’

(25) a. VP  b. v  c. vP  d. H-AspP
    run  v  vP  to run
    vP  Bill  to run
    Bill  v’

There are fifteen native speakers of American English:

(26) Situation: after giving a direction to a group of students who are about to write an in-class essay, the proctor says:

a. Begin writing!! (93.3% or 14/15)
   b. Begin to write!! (6.7% or 1/15)

Gerundive is overwhelmingly preferred with imperative
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- **Prediction 2:** Passive should be more natural with infinitive (H-Asp) than with gerundive (L-Asp).
  - Corpus search using the Wall Street Journal corpus (1987):

<table>
<thead>
<tr>
<th></th>
<th>begin</th>
<th>continue</th>
<th>start</th>
<th>cease</th>
<th>total</th>
<th>% of passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gerundive</td>
<td>199(1)</td>
<td>49(1)*</td>
<td>129(0)</td>
<td>29(0)</td>
<td>406(2)</td>
<td>0.5%</td>
</tr>
<tr>
<td>Infinitive</td>
<td>113(3)</td>
<td>336(5)</td>
<td>54(0)</td>
<td>34(1)</td>
<td>567(19)</td>
<td>4%</td>
</tr>
<tr>
<td>total</td>
<td>312</td>
<td>415</td>
<td>183</td>
<td>63</td>
<td>973</td>
<td></td>
</tr>
</tbody>
</table>

( ) = the number of passive sentences, * = get passive

- ✔ Passive is more frequent with infinitive than with gerundive.

5. Conclusions

- The traditional control/raising (thematic vs. non-thematic subject) analysis of English aspectual verbs does not account for the data in full.
- I proposed the dual position analysis of English aspectual verbs, in which they occupy two different positions in a clause, above and below vP (H-Asp and L-Asp).
- The difference in the position of aspectual verbs is visible as the form of their complements (infinitive vs. gerundive).
- The evidence from previous studies as well as new findings was presented to argue for the proposal.
- Based on the proposed analysis, I proposed an account for the imperative fact (4) without assuming that aspectual verbs can be thematic.

References:
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Author’s Address:
Department of Linguistics 0108
University of California, San Diego
9500 Gilman Drive
La Jolla, CA 92093-0108
fukuda@ling.ucsd.edu

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