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Author(s): Laurel Brinton
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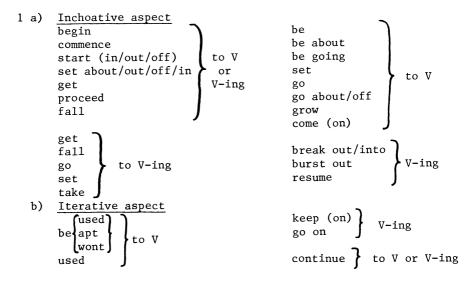
# The Grammatical Status of Aspectual Catenatives in English
## Laurel Brinton
### University of California, Berkeley

Verbal aspect has become a topic of increasing interest in linguistic theory, in philosophy of language, and in language-particular studies. Although in English aspect is not the primary distinction in verb morphology, it is nonetheless an important semantic category with numerous formal manifestations within the verbal system and without. Previous studies of aspect in English have concentrated on the aspectual nature of the perfect and progressive "tenses," lexical verbs, and verb particles. A rather neglected source of aspect study in English is a group of aspectual verbs or "catenatives," e.g., begin, continue, cease, and keep (on), which occur with complement verbal structures and which express most of the major aspectual distinctions.[1] These catenatives present interesting problems for linguistic investigation: determination of the number and variety of aspectual catenatives, of their semantic/aspectual function, of their interaction with other aspectual elements, and of their grammatical status as main verbs or auxiliaries. The purpose of this paper is to examine the last question.

## 1  Previous studies of aspectual catenatives
## 1.1  Tabulation of the aspectual catenatives in English

Traditional grammarians were generally content simply to list the aspectual catenatives, the accompanying particles, and the complement structures which they take and to classify them as markers of inchoative, terminative, iterative, or continuative aspect. The following list (1) is a compilation of several scholars' lists (Curme 1931:377-87; 1947:262-4; Charleston 1941:106-16, 130; Poutsma 1926:291-310; Visser 1969:1372-91; 1973:1888-1906): [2]

1 a)  Inchoative aspect

| begin | |
| --- | --- |
| commence | |
| start (in/out/off) | to V |
| set about/out/off/in | or |
| get | V-ing |
| proceed | |
| fall | |

| be | |
| --- | --- |
| be about | |
| be going | |
| set | |
| go | to V |
| go about/off | |
| grow | |
| come (on) | |

| get | |
| --- | --- |
| fall | |
| go | to V-ing |
| set | |
| take | |

| break out/into | |
| --- | --- |
| burst out | V-ing |
| resume | |

  b)  Iterative aspect

| be { used / apt / wont } | to V |
| --- | --- |
| used | |

| keep (on) | V-ing |
| --- | --- |
| go on | |

| continue | to V or V-ing |
| --- | --- |

c)  Continuative aspect

| keep (on) | stand |
| go on | lie |
| remain | sit |
| persist in | stay |

} V-ing     continue } to V or V-ing

d)  Terminative aspect

| finish | lay off |
| quit | leave off |
| stop | break off |
| desist | knock off |
| forsake | give up/over |
| cut out | {get} through / {be} |
| {have}{be} done | discontinue |

} V-ing     cease} to V or V-ing

## 1.2  Determination of the status of aspectual catenatives using syntactic evidence

Although grammarians have listed these catenatives and recognized their aspectual nature, they have reached no conclusion about their grammatical status. Different scholars have assigned them either to auxiliary or to full verb status or have given them instead a sort of twilight existence between these two categories. The variety of names for these words reflects this confusion: "catenatives,"[3] "verbs of temporal aspect," "auxiliaries of aspect," "quasi-auxiliaries," "aspectual semi-auxiliaries," "aspectualizers," or "so-called verbs of temporal aspect." Those who give these words auxiliary status are often inconsistent or tentative in doing so and generally offer little justification for their classification. On the other hand, those who give these words main verb or intermediate status rely on syntactic evidence which is inconclusive or contradictory and neglect semantic evidence.

The problem of distinguishing catenatives from auxiliaries or main verbs is related to the problem of distinguishing auxiliaries from verbs by syntactic criteria alone. The generally accepted members of the category auxiliary, have, be, and the modals, do not constitute a homogeneous group syntactically. They have different morphological forms and occur in different positions and syntactic constructions. Particularly troublesome for the auxiliary-main verb dichotomy are borderline auxiliaries such as dare, need, used to, ought to, let's, or going to, which behave syntactically like auxiliaries in some respects and like main verbs in other respects.

Catenatives likewise show certain syntactic similarities with and differences from auxiliaries. They fail the major syntactic tests for auxiliaries: they require do in negation, inversion, and emphatic stress. Unlike auxiliaries, catenatives occur in chains of varied order but within a practical limit of length. They may follow the modals, have, or be, and although some catenatives may precede have and be, aspectual catenatives cannot.

Membership in the category of catenative is open, whereas in that of auxiliary it is not. Catenatives may be inflected for the third person and past tense, unlike the modals but like have and be. They may be the first member of an imperative, unlike modals and have but like some instances of be. Like all auxiliaries, however, a catenative forms a single syntactic unit with the following verb, and these unified catenative constructions can be differentiated from other complex verbal constructions such as verbs with infinitives of purpose or result, verbs of emotion with infinitives, or verbs with participles modifying the subject (Palmer 1965:174-7). Moreover, aspectual catenatives have few selectional restrictions, for almost any English sentence can have a counterpart which includes one of these words. This lack of selectional restriction is a "hallmark of grammatical items" (García 1967). One should understand from the above comparison, therefore, that catenatives cannot be assigned conclusively to either auxiliary or main verb status on syntactic criteria alone.[4]

1.3 Main verb analyses of aspectual catenatives

Despite the inconclusiveness of the syntactic evidence, grammarians, whether traditional, structural, or generative, generally analyze catenatives as main verbs. In such an analysis, the central issues are the transitivity or intransitivity of the catenatives and the status of the following verbals, as objects or modifiers. Traditional grammarians argue that if the catenative is normally a transitive verb, then a following infinitive functions as a nominal object or complement and a following -ing form as a gerund or verbal noun. If the catenative is normally an intransitive verb, however, the following -ing form is a present participle or verbal adjective. Problems in this analyis arise, however, with "intransitive" catenatives which may nevertheless occur with infinitives. Palmer (1965:14-17, 150-9) correctly points out the difficulty of distinguishing nominal -ing forms from adjectival ones in the traditional analysis.

Several more recent theories concerning the status of aspectual catenatives are refinements of the "main verb analysis" of the auxiliary proposed initially by Ross (1967); this analysis sees the modals, have, and be as main verbs taking full sentential complements and having complex deep structures which are collapsed by various transformations. Comparing the sentences John intended to come tomorrow and John was coming tomorrow, Huddleston (1969) postulates a system of double tenses and double verbs for modals, aspectual auxiliaries, and catenatives. All are main verbs with sentential subjects. They select their tense separately from the second verb but may place a restriction on the tense of the next lower verb. For example, the aspectual catenatives, begin, start, continue, keep, cease, and stop, require a following present tense. Newmeyer (1975) also argues that "verbs of initiation, duration, and cessation" as well as other catenatives and the modals are always intransitive main verbs with propositional subjects. In a more detailed analysis than these, Perlmutter (1970:107-19) argues

that the aspectual verb <u>begin</u> may take two distinct  deep struc-
tures:  1)  <u>begin</u> may be a transitive verb with a sentential
object, as in cases where <u>begin</u> has an animate subject and the
like subject constraint holds, or 2)  <u>begin</u> may be an intransitive
verb with a sentential subject, where <u>begin</u> has an inanimate sub-
ject (e.g., <u>Zeke began to work</u> or <u>Oil began to gush from the well</u>).

## 2  Establishing the status of aspectual catenatives

### 2.1  Semantic arguments for the status of aspectual catenatives

The above review of syntactically-based studies has manifested,
it is hoped, the shortcomings of trying to decide on syntactic
grounds alone whether aspectual catenatives are main verbs or
auxiliaries.  Using primarily semantic evidence, this section of
the paper presents several arguments for the grammatical status
of aspectual catenatives as auxiliaries.  Both the functioning
of the catenatives in expressing aspectual notions and the func-
tioning of the following verbals in expressing lexical notions
are examined in order to show that the words are, respectively,
auxiliaries and main verbs.

The lexical content of aspectual catenatives such as <u>begin</u>,
<u>cease</u>, and <u>continue</u> corresponds to the universal aspectual cate-
gories, inchoative, perfective, imperfective, and iterative aspect,
which in languages other than English are often given formal ex-
pression in verbal inflections or auxiliaries.  The aspectual cate-
natives originated in the history of English as lexical main
verbs, but their inherent meanings have become formalized and
their function grammaticalized.[5]  In a similar development, the
modal auxiliaries, perfect <u>have</u>, and progressive <u>be</u> began as main
verbs; the progressive is thought to have originated in a construc-
tion with main verb <u>beon</u> and either an adjectival or a nominal
-<u>ing</u> form, and the perfect in a construction with main verb
<u>habban</u> meaning 'hold' (or <u>beon</u>) and an adjectival -<u>en</u> form.  As
these constructions became verbal periphrases, <u>have</u> and <u>be</u> lost
their verbal character.  The modals began, of course, as preterite-
present verbs.  In addition to functioning as aspectual or modal
auxiliaries, all of the accepted auxiliaries function sometimes
as main verbs in modern English, although the modals do so rarely
now.  The aspectual catenatives likewise retain main verb uses;
in fact, they keep more main verb characteristics and uses than do
the other auxiliaries.  The aspectual catenatives and the main
verbs from which they originate often contrast in their syntax,
semantics, and even phonological shape:

|  | Main Verb | Catenative |
|---|---|---|
| 2) | He stopped to eat. | He stopped eating. |
|  | He came, to find that I was out. | He came to see that he was |
|  | She is going (to the party) to | wrong. |
|  | make him happy. | She's going to make him happy. |
|  | Despite the bad road, he went on. | She went on speaking. |
|  | He used her car. | He used to swim daily. |
|  | He gave up, fuming.  Fuming, he | He gave up smoking. |
|  | gave up. | |

The similarity in semantic function of the catenatives of aspect and the accepted aspectual auxiliaries is evidenced by their inter-changeability. The catenatives and auxiliaries of mood, tense, and voice may likewise replace one another:

|  | | Auxiliary | Catenative |
|---|---|---|---|
| 3) | Voice: | He was killed. | He got killed. |
|  | Mood: | He should be in his office. | He is supposed to be in his office. |
|  | Tense: | John will arrive tomorrow. | John is going to arrive tomorrow. |
|  | Aspect: | He was sitting there for hours. | He continued to sit there for hours. |

On the bases of development, meaning, and function, therefore, the aspectual catenatives may be said to be only arbitrarily dis-tinguished from the accepted aspectual auxiliaries have and be, just as catenatives of mood, voice, and tense are from the cor-responding auxiliaries.

   Two other tests also point to the semantic similarity of auxiliaries and catenatives. The first, remarked upon by García (1967), is that with catenatives and true auxiliaries there is passivization across the infinitive and preceding catenative, but such does not occur with other complex verbal structures:

4)   John began to kill Tom.
        Tom began to be killed by John.
     Sue continued to write novels.                    } Catenative
        Novels continued to be written by Sue.
     Bill was driving race cars.
        Race cars were being driven by Bill.            } Auxiliary
     Jane has to find a job.
        A job has to be found by Jane.
     Tom wished to kill John.
        John wished to be killed by Tom.                } Main Verb
     Jack stopped to eat dinner.
        *Dinner stopped to be eaten by Jack.

The second test, remarked upon by Anderson (1968), is that cate-natives, like auxiliaries, are "transparent" to verbal restrictions and can be defined entirely in terms of the surrounding verbs. For example, the verb ask imposes a restriction on the following verb that it express a voluntary action. A true verb such as try can meet this restriction, whereas a catenative such as begin cannot; the verb after begin itself meets the restriction:

5)   *ask him to hear [-vol]                ask him to listen [+vol]
      ask him to try to hear               ask him to try to listen
     *ask him to {begin    } to hear       ask him to {begin    } to listen
                 {continue }                          {continue }
                 {cease    }                          {cease    }

## 2.2 An analysis of aspectual catenatives in logical terms

The most important argument for the status of aspectual cate-
natives as auxiliaries involves a semantic analysis of them.
Aspectual catenatives are analyzable entirely in terms of logical
notions with no reference to lexical ones. [6] This section of the
paper will summarize several different semantic analyses and then
present a synthesis.

Anderson (1968) concludes from the transparency of words such
as begin that they have no independent meaning and need not appear
in the lexicon. Sentences with these verbs have the following
paraphrases:

6)  begin  $NP_1$ not VP   stop   $NP_1$ VP        continue  $NP_1$ VP
            $NP_x$ $V_x$ $NP_1$          $NP_x$ $V_x$ $NP_1$              $NP_x$ $V_x$ $NP_1$
            $NP_1$ VP            $NP_1$ not VP              $NP_1$ VP

These paraphrases are not reduced by syntactic transformations but
are, in fact, part of the semantic component itself. The other
semantic interpretations of the aspectual catenatives propose that
they are in underlying structure either single predicates (verbs)
or configurations of such predicates. [7] These predicates consist,
however, only of logical structures. They occur in complex struc-
tures which are reduced by transformations. Dowty (1972) argues
that inchoative "aspectual verbs" involve a component COME ABOUT
(or BECOME) and a stative with a sentential subject. In von
Wright's change of state logic, they express -pTp ('not p and then
p'). He also suggests that pT-p ('p and then not p') might be re-
presented by the predicate END and pTp ('p and then p') by REMAIN.
Cook (1976) pursues Dowty's suggestion for the predicate REMAIN or
"durative aspect," which has surface manifestation in the "aspec-
tual verbs" keep and stay. The durative may occur in conjunction
with states or processes or with causative states, processes, or
actions. The durative is in the first case a one-place predicate
(intransitive) with sentential subject and in the second a two-
place predicate (transitive) with sentential object. The possi-
bilities are as follows:

7)  durative state:  The water stayed calm.
    durative process:  It kept raining.
    causative durative state:  Stay off the grass.  Keep off the
                               grass.  He kept his car in the
                               garage.
    causative durative process:  He kept the water running.
    causative durative action:  He kept the men working.  Keep
                                smiling.

Several criticisms may be raised to the above analyses. The
first objection is to the second line of Anderson's paraphrases
which reads $NP_x$ $V_x$ $NP_1$. The line suggests that an agent acts upon
the subject of the catenatives, but in many sentences, this is

simply not the case. The second objection is that Cook's desig-
nations "durative state" and "durative process" are redundant,
because states and processes are inherently durative. This
redundancy shows, therefore, that REMAIN is perhaps not the cor-
rect analysis of <u>keep</u> and <u>stay</u>. An alternative analysis in
Parisi and Antinucci (1976) corrects this difficulty. They argue
that inchoative verbs and their paraphrases with <u>become</u>, <u>begin</u>,
<u>start</u>, and <u>get</u> consist of the predicate CHANGE plus a stative.
The terminative <u>stop</u> consists of the predicates CHANGE and NEG
meaning 'change to not,' and, finally, the duratives <u>keep</u>, <u>stay</u>,
and <u>continue</u> have the configuration NEG CHANGE NEG meaning 'not
change to not.' One may conclude that aspectual catenatives
cannot always be represented with a single predicate but may re-
quire a more complex configuration of predicates. A second, more
important objection    is   the    conception of aspectual catena-
tives as predicates or verbs. The findings of these analyses,
namely that aspectual catenatives can be understood strictly in
terms of logical concepts and seem to express no lexical meaning,
argue against such a conception. They seem to show, in fact, that
these catenatives express auxiliary meaning. Using the semantic
insights of these studies without their syntactic frameworks, I
offer the following analysis of aspectual catenatives as auxiliaries

| 8) Catenatives | Aspect | Semantic Component | Change of State Calculus |
|---|---|---|---|
| begin, start | Inchoative | COME ABOUT | $-pTp$ |
| finish, stop | Terminative | END | $pT-p$ |
| keep on } continue } | Continuative Iterative | CONTINUE } REPEAT } | $pTp$ |

## 2.3  The verbals following aspectual catenatives

   A final argument for aspectual catenatives as auxiliaries con-
cerns the verbals--infinitives, participles, or gerunds--which
follow them. These verbals are not analyzable in logical or gram-
matical terms only. In fact, they express the primary lexical or
verbal meaning of the sentence and compare in form and function
with the verbals following <u>have</u>, <u>be</u>, and the modals.[8]  As we have
seen above, interpreting them as objects or complements to main
verbs is problematical and interpreting them as the second main
verb in a complex structure is undesirable.

## 3  Conclusion

   The arguments in this paper have attempted to show that to
determine the grammatical status of aspectuals such as <u>begin</u>,
<u>finish</u>, or <u>continue</u>, the use of syntactic criteria alone is insuf-
ficient. One must consider a variety of criteria. Primarily, one
should compare the aspectual catenatives with the aspectual auxil-
iaries, progressive <u>be</u> and perfect <u>have</u>. Similar to these auxil-

iaries, the catenatives express universal aspectual distinction; they are distinguishable in various ways from their main verb counterparts; they are analyzable with logical rather than lexical notions. Much work needs to be done yet in the tabulation and classification of aspectual catenatives, in the study of their historical development, and in the analysis of their function in the aspectual meaning of the English sentence as a whole, yet one conclusion has perhaps been reached by this paper: terms such as "verbs of temporal aspect" or "aspectual semi-auxiliaries" or even "catenatives of aspect" can be rejected in favor of the simpler and more everyday term "auxiliaries of aspect."

### Notes

1. In addition to traditional treatments of these verbs, there are, in fact, several generative studies of the "begin-class of verbs" (e.g., Perlmutter 1970; Newmeyer 1975), but they consider primarily syntactic features. A book which examines the semantic properties of these aspectual verbs in detail, Freed (1979), came to my attention too late for thorough consideration in this paper.

2. This list represents, of course, a compromise among the various scholars, for occasionally the syntactic environments in which they show the catenatives occurring differ. These differences may often be explained by the varying ages of their examples. Several of the constructions listed above seem to me archaic or literary, but I include them for the sake of completeness.

3. A catenative is generally defined as a main verb, but I use catenative as a neutral term meaning a word which combines in linked chains with other verbal elements.

4. Indeed, it seems that auxiliary cannot be defined in syntactic terms alone. Steele (1978) suggests that the univeral category AUX is in part defined by a notional set which contains modality, tense, or aspect.

5. Traugott (1980) supplies several examples from the history of English of this process of "delexicalization" or "grammaticalization," i.e., the development of autonomous word into grammatical markers. Of particular interest are the change of locative adverbs/prepositions into "aktionsart" particles and the change of Old English main verbs into auxiliaries (magan--> may, cunnan--> can).

6. Of course, main verb occurrences of these words may require lexical notions in their definitions. For example, quit as a main verb usually means 'dropping out of' or 'no longer participating in' (Freed 1979:119). Freed explains the occurrence of aspectual verbs with derived nominals or primitive nouns in the following ways: in the former case, the nouns are derived from an S or a VP which contains a full verb. In the latter case, either a verbal part has been deleted and is easily retrievable or the nouns themselves express events, continuing activities, or results of events or have clear beginnings or endings.

7. One might compare McCawley's analysis (1971) of all in-
stances of the auxiliary have as an underlying PAST and Parisi
and Antinucci's analysis (1976) of modal auxiliaries in terms
of the semantic predicates BIND and BELIEVE.

8. Although Freed (1979) views aspectual catenatives as main
verbs taking sentential complements, she admits that "since aspec-
tualizers are . . . verbs which specifically operate on forms that
name events, such sentences may be thought of as primarily descrip-
tive of the complement events" (p. 17).

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