Structural Classification of English Modals

As Based on Form and Syntactic Behavior

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12/1/2009

Abstract: Discusses the various attributes of English modal forms, providing an organizational scheme of classifying modals based on analysis of their forms and syntactic behavior. Nine Structural Classes are defined into which all currently known English modals are organized. drew.ward@calleteach.org

Structural Classification of English Modals

Structural Classification of English Modals is the fourth in a series of five papers dealing with the basic grammatical structure and behavior of verbal constructions in modern English. These five works: *Voice in English: Semantic Implications of the Passive-Active Paradigm* (2007), *Word Order & Syntactic Hierarchy in English* (2007), *A Logical Classification of English Aspects* (2007), *Structural Classification of English Modals* (2009), and *An Inventory and Discussion of English Futurity* (2009) are intended to provide a holistic overview of the core functions of the language and their inherent interactions so that a better understanding of modern English grammar may be attained.

I. Introduction

Modality is a contentious topic within the linguistics community with a vast diaspora of theories, approaches, interpretations, and classification schemes – some complementary and some far from it. English relies on modal expressions more than many languages and possesses a vast complexity of mood and modal forms. While there may be much debate as to which moods are or are not present in English usage, there is little to deny that mood plays an integral role in the meaning and structure of utterances in the language. Mood is expressed in English via an ever changing number of marked and unmarked forms. Regardless of specific modal usage being a point of contention among linguists and grammarians, language analysis shows a clear pattern of change in recent centuries toward increased usage of marked modal forms. Many of these marked forms involve specific abnormal word orders, adverbial or prepositional cues, qualifying clauses or phrases, and verbal constructions functioning in an auxiliary manner. It is not the specific moods, nor the meanings expressed by them that are the subject of this paper. Rather, this is a discussion of these various marked verbal auxiliary forms used to manifest modality within the language.

This paper will first discuss the auxiliary system of English utterances as outlined in *Word Order & Syntactic Hierarchy in English* (Ward 2007) and in particular the role modals as auxiliaries within this system. It should be stated that the term modal, as discussed in this paper refers to any single word or words used as a marked form for expressing modality. There is no credence given to terminology such as true modal, semi-modal, modal approximates, or the like. Terminology such as the aforementioned reflect a very limited and closed-minded approach to the study of modality and have more a place in efforts to classify structures based on historical views of modality than on the usage of the forms themselves. As pertains to this discussion, modals express modality, and any marked form – whether a single verb, phrase, or other structure which together or alone expresses modality is a modal. Upon adequate background discussion including word order, auxiliaries, and aspect, an accounting of all currently known structural classes of English modals shall be given with special attention paid to their form, behavior, and effect on the forms they subordinate. Finally as thorough an inventory of modal forms as possible will be provided with reference to their respective structural classifications. As methods of modal expression in English are constantly evolving, this list is continually growing yet the vast majority of modals (including new forms as they enter active use) shall fall into one of the structural

classes to be discussed. It is possible that newly adopted forms could fall beyond the scope of any of the currently referenced classes of which there are nine. If this be the case, addition of new classes describing their attributes shall be merited.

II.   Structural Attributes of English as Relevant to Modal Structure

While this paper is primarily a catalogue of English modals organized by structural class and is focused primarily on discussing those particular structural components of modals that affect their use in utterances, it is necessary that this discussion be approached with competent understanding of a few basic areas of syntactic structure. These topics – Aspect, Word Order, and the system of Auxiliary verbs in English interact with, affect, and are affected by the behavior and structure of the modals to be discussed and are integral in defining their structural class. By understanding these ideas and their relationship to modal classes, many rules of grammar are made clear and the root of relevant guidelines remove the bewilderment often felt regarding seemingly otherwise quirky rules of usage.

1. Aspect

Aspect as a grammatical category is often confused with tense. This is of course incorrect as tense is a comparison of temporal reference between the Time of Utterance (T_{UTT}) – the point in time that the utterance is spoken or written or read, and the Time of Assertion (T_{AST}) – the time in which the assertion occurs or is occurring, the Time of Completion (T_{COM}) when a need exists to know when an action is finished or to be able to measure its duration to a specific point, or in the case of certain propositional modal assertions the Time of Evaluation (T_{EVL}) – the point in time when the assertion is evaluated as having become true or not.[1] Tense references these points of time without respect to the information conveyed. The nature and type of information of an utterance is governed instead by its aspect.

Aspect as defined is simply the nature of a verb as to its beginning, duration, completion, or repetition without reference to its position in time.[2] Whether nature is the most opportune word to use in describing the role of aspect, the four characteristics given above are the true key foci of an aspectual system. In English there are only two aspects – Informational and Durational. Aspects in English for the most part exist beyond the traditional realm of inherent aspect of the verb. That is, the lexical aspect, or *Aktionsart* of the verb itself. In many languages verbs are inherently active or informational, either expressing a durational activity or a nondurational informative idea such as condition or a change of state. In such systems, this is a component inherent in the meaning of verb itself. In English however this inherent meaning is not present with almost every verb having the flexibility to express activity or information. This is perhaps a newer feature of modern English as in the past many verbs have had inherent aspect but current usage reflects a change in which any verb – including supposedly inherently non-active verbs such as statives can be expressed as activity.

Because of the lack of inherent lexical aspect in English, grammatical aspect in the language takes on a different role compared to that of aspect in other languages, including other modern Germanic languages. Aspect in English provides a framework which allows or disallows certain types of information from being expressed by the utterance either explicitly or inherently. This idea is actually reflected in the more traditional names of the English aspect – simple and progressive or continuous. Simple refers not to the simplicity of forms of the aspect (which can actually be among the most semantically complex in the language) but to the more simple nature of the information conveyed by the forms. This paper uses the term Informational aspect in lieu of simple to reflect this standard purpose of the aspect in that it is generally used to express general information as it lacks the ability to express duration, a key attribute of activities. Activities have implied duration inherent as an activity does not just happen at a single point in time, but instead occurs over a range. That range can be quite short or very long but regardless activities occupy a range of time that reflects their duration. This range of activity is the driving force behind names such as progressive (the verb progresses over a range of time) or continuous (the verb continues over a range of time). Because even in the informational aspect the assertion can progress or continue, these names are inherently flawed. This paper instead uses the term Durational Aspect, as duration is the key distinguishing element within the aspect and expressing a measure of duration is not possible in the informational.
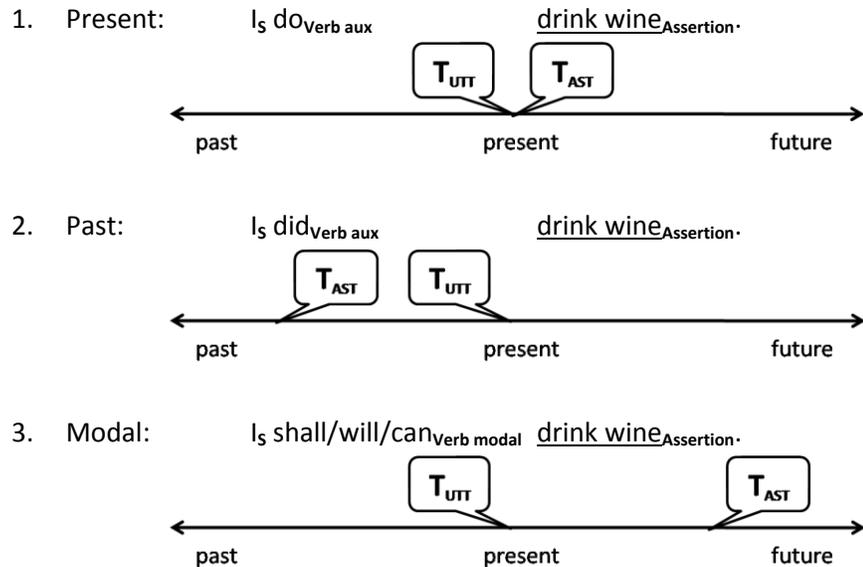
The two English aspects occur in raw and perfected (complete) forms. The term perfected is used in order to maintain continuity with traditional educational and linguistic conventions of discussing such forms in language. Raw refers to forms which would traditionally not be marked as perfect, while perfected is used in much the same way as terms such as perfect, and the perfect are employed elsewhere but with perfected (an adjective modifying the aspect) being the more precise usage. This raw versus perfected comparison should not be confused with imperfective versus perfective which deals with the nature of verbs themselves in languages with systems of lexical aspect as discussed above. The aspects and their forms are further discussed below:

a. **Informational Aspect**

The Informational Aspect in English is used to express information that requires no reference to duration or continuous nature of the assertion involved. The informational is also used to express habitual actions.

i. **Annotation:** Aspects are annotated with a capital A for aspect with the name of the aspect abbreviated and attached in subscript so that the Informational is annotated: A_{INF}

ii. **Structure:** Informational aspect utterances are formed using the finite form of the content verb (unless subordinated by a modal requiring the infinitive) with

the weak auxiliary do expressing agreement for tense, number, and person. (see Weak Auxiliaries, Section 3a below). See the positive statement active voice forms below in present, past, and modal tenses:
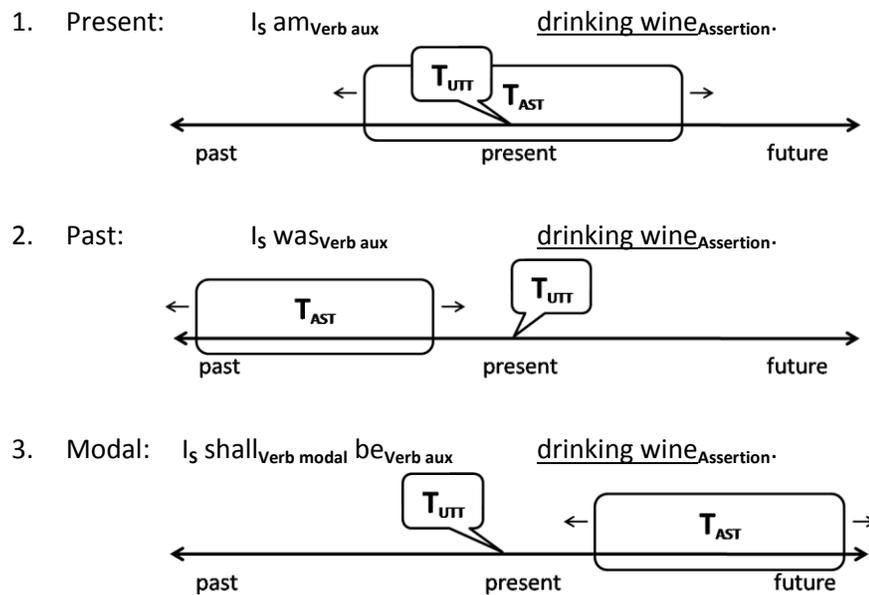
1. Present: I_S do$_{Verb\ aux}$ drink wine$_{Assertion}$.

T_{UTT} T_{AST}

past   present   future

2. Past: I_S did$_{Verb\ aux}$ drink wine$_{Assertion}$.

T_{AST} T_{UTT}

past   present   future

3. Modal: I_S shall/will/can$_{Verb\ modal}$ drink wine$_{Assertion}$.

T_{UTT} T_{AST}

past   present   future

Note in the diagrams above that T_{UTT} and T_{AST} as both given as single points in time. T_{UTT} is by nature a single temporal point as it's merely a reference to the time at which the utterance is made and that always happens and passes. If the utterance were to be repeated the T_{UTT} moves forward to that new time; likewise, if dealing with reported speech or an utterance that occurred in the past, then that T_{UTT} as the point of reference for tense is moved accordingly. T_{AST} however, is given as a point in time not because the assertion only occurs at a given moment (although this is possible), but instead because the informational aspect does not afford the capability of expressing duration. Thus, the informational is characterized less by what it can express than by the limits on what it cannot express.

b. Durational Aspect

The Durational Aspect is used in expressions that require reference to duration or continuous nature of the assertion involved particularly for activities. The Durational is also used to express repeating actions which may be seen as habitual but only when attention toward the activity nature of the action is required.

i.   **Annotation:** Aspects are annotated with a capital A for aspect with the name of the aspect abbreviated and attached in subscript so that the Durational is annotated: A_{DUR}

ii. **Structure:** Durational aspect utterances are formed using the present participle form of the content verb with the strong auxiliary BE expressing agreement for tense, number, and person. (see Strong Auxiliaries, Section 3b below). See the positive statement active voice forms below in present, past, and modal tenses:
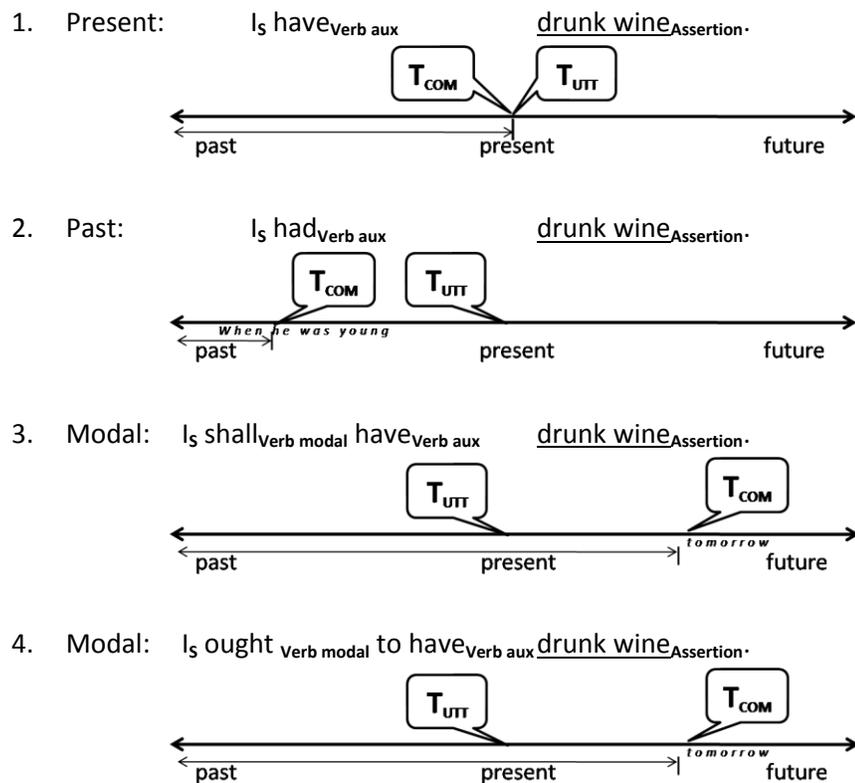
1. Present: I$_S$ am$_{Verb\ aux}$ drinking wine$_{Assertion}$.

T_{UTT} T_{AST}

past   present   future

2. Past: I$_S$ was$_{Verb\ aux}$ drinking wine$_{Assertion}$.

T_{AST} T_{UTT}

past   present   future

3. Modal: I$_S$ shall$_{Verb\ modal}$ be$_{Verb\ aux}$ drinking wine$_{Assertion}$.

T_{UTT} T_{AST}

past   present   future

In opposition to the Information, the diagrams above show that while T_{UTT} remains a single point, that T_{AST} is shown as a range within the timeline. T_{AST} is given as a range because assertions in this aspect have inherent duration and thus cannot occupy only a single point in time. This is not to say that every Durational Aspect utterance must specify duration, but that it is possible to do so and that even when a duration (for two hours, from noon to night, etc.) is not specified that inherent duration, as a natural characteristic of activity, is implied by the form. Thus, the Durational is characterized its additional ability over the Informational in being able to express this additional attribute.

c. **Perfected Informational Aspect:**

The Perfected Informational Aspect in English is not a separate aspect, but rather the perfected forms of the Informational Aspect. It is used in much the same ways as the raw informational (A$_{INF}$) to express information that requires no reference to duration or continuous nature of the assertion involved and to express habitual actions. In perfecting the aspect however, it becomes possible to specify a point of completion for the assertion – something that is not possible in the raw informational.

i. **Annotation:** As with raw forms, perfected aspects are annotated with a capital A for aspect with the name of the aspect abbreviated and attached in subscript, this is followed by a superscript P for perfected so that the Perfected Informational is annotated: A_{INF}^{P}

ii. **Structure:** Perfected Informational Aspect utterances are formed using the past participle form of the content verb with the strong auxiliary HAVE expressing agreement for tense, number, and person. (see Strong Auxiliaries, Section 3b below). See the positive statement active voice forms below in present, past, and modal tenses:

1. Present: I_S have$_{\text{Verb aux}}$ drunk wine$_{\text{Assertion}}$.

2. Past: I_S had$_{\text{Verb aux}}$ drunk wine$_{\text{Assertion}}$.

3. Modal: I_S shall$_{\text{Verb modal}}$ have$_{\text{Verb aux}}$ drunk wine$_{\text{Assertion}}$.

4. Modal: I_S ought $_{\text{Verb modal}}$ to have$_{\text{Verb aux}}$ drunk wine$_{\text{Assertion}}$.

Note that T_{AST} is missing from the above diagrams. This is because perfected constructions do not concern themselves with the time at which the assertion occurs, but rather only with the time by which the assertion is completed. Note also from the arrows that without further qualifying information within the utterance, the exact point of completion is unknown as well. What is known is the time by which the completion had occurred, that is to say that it may not be known exactly when the assertion is completed, but what is know is that *as of* a given time that completion has occurred.

As of is the key phrase for perfected constructions and in the perfected informational aspect the information conveyed is that as of a given point in time the assertion is

completed. For the perfected informational aspect in the present, no time phrase is ever allowed as the time of completion always coincides with the time of the utterance or [*as of* T_{UTT}, T_{COM}]; this provides the rule: perfected forms in the present tense can never have a specified time qualification as the only acceptable time is the time of the utterance (which is always now).

d. Perfected Durational Aspect:

The Perfected Durational Aspect in English is, like the Perfected Informational, not a separate aspect, but rather the perfected forms of the Durational Aspect. It is used in much the same ways as the raw durational, for referencing the duration or continuous nature of the assertion involved. In perfecting the aspect, it becomes possible to specify a point of completion for the assertion – something that is not possible in the raw Durational, and to then measure the duration of the assertion up to that point in time.

The Perfected Durational Aspect differs from the Perfected Informational Aspect in that while the perfected Informational is only concerned with the relation of T_{UTT} to T_{COM}, perfected Durational retains reference to T_{AST} and allows for relation of T_{UTT} to T_{COM} within the durational scope of T_{AST}.

i. **Annotation:** As with raw forms, perfected aspects are annotated with a capital A for aspect with the name of the aspect abbreviated and attached in subscript, this is followed by a superscript P for perfected so that the Perfected Durational is annotated: A_{DUR}^{P}

ii. **Structure:** Perfected Durational Aspect utterances are formed using the present participle form of the content verb, the aspectual strong auxiliary BE in past participle form BEEN preceding, with the strong auxiliary HAVE expressing agreement for tense, number, and person. (see Strong Auxiliaries, Section 3 below). See the positive statement active voice forms below in present, past, and modal tenses:
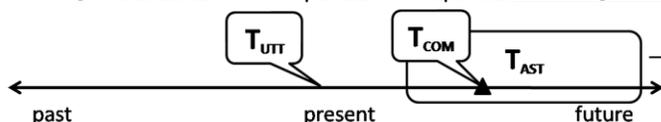
1. Present: I**s** have**perf aux** been**apect aux** drinking wine**Assertion**.
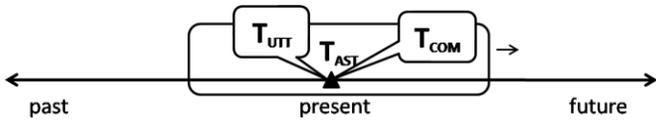
2. Past: I**s** had**perf aux** been**apect aux** drinking wine**Assertion**.
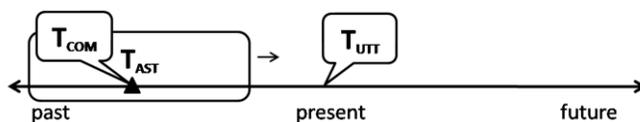
3. Modal: I$_S$ shall$_{\text{Verb modal}}$ have$_{\text{perf aux}}$ been$_{\text{apect aux}}$ <u>drinking wine$_{\text{Assertion}}$</u>.
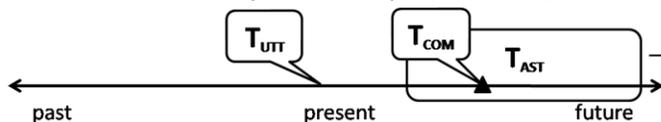
4. Modal: I$_S$ ought $_{\text{Verb modal}}$ to have$_{\text{perf aux}}$ been$_{\text{apect aux}}$ <u>drinking wine$_{\text{Assertion}}$</u>.

Note that unlike with the perfected informational, T_{AST} is present in perfected durational forms because the duration of the assertion is key to the function of and semantic need for the durational aspect. Beyond the raw durational, the perfected forms integrate the added T_{COM}. Unlike T_{COM} in $A_{\text{INF}}^{\text{P}}$ (perfected Informational Aspect) which clearly marks a terminus of the assertion, T_{COM} in $A_{\text{DUR}}^{\text{P}}$ (perfected Durational Aspect) represents only a single point of completion within the whole of the duration of the assertion. T_{COM} in the perfected Durational is often referred to as interrupting the assertion as regardless of whether the assertion continues beyond T_{COM}, the duration of the assertion is measurable up to that point. The Perfected Durational Aspect is most often used to measure the duration of an assertion up to a given point of completion so that by knowing how long something has been occurring up to a specified point in time, the start point of that assertion is thus known.

What should be noted is the differing functions of T_{COM} between the Informational and Durational aspects. T_{COM} in perfected Informational forms always coincides with the terminus of the assertion with the overall T_{AST} being irrelevant and the duration of the assertion being unknown entirely. In perfected Durational forms T_{COM} merely represents a known reference point up to which the duration of the assertion can be measured thus retaining the T_{AST} as an integral item. T_{COM} may occur at any time during T_{AST} or at the terminus of it; whether the assertion continues beyond T_{COM} is irrelevant to the purpose of the form as no matter where T_{COM} is within the range of T_{AST}, the duration of the assertion up to that point can be measured and reported.

2. Word Order

Word order plays a vital role in the syntax of most languages with very few having a truly free word order. Languages with more flexible word orders tend to have complex systems of inflection which express mood, aspect, and case in addition to the inflected properties of more fixed languages such as tense and agreement for person and number. In English word order is set. There are only a limited number of word orders which are used universally under given circumstances. This set word order in English sets the role of the morphemes within utterances in the language, in particular case which aside from the personal pronouns, the possessive APOSTROPHE and APOSTROPHE + S, and the interrogative pronoun WHO is no longer inflected in English.

English is unique in among Germanic languages in that it possesses a relatively small set of word orders. The language has one set of word orders for active voice constructions and one set for passive voice. These consist of four primary forms as well as a secondary set of these forms for use with interrogative pronouns. These word orders specify the roles of verbs and nouns used in the utterance as content or auxiliary verbs for the predicate and as subjects, objects (and further [DATIVE] indirect objects or [ACCUSATIVE] direct objects). These word orders are fixed and do not change except rarely under the influence of certain moods. In addition to these primary word orders there are rare utterances that do not fit the standard word orders. These utterances are special modal constructions in which the word order is set by the mood expressed. Most of these forms are seen as archaic but some are still in use. Still, this group makes up such a small percentage of utterances within the language that the word orders described below can be said to be near universal.

a. Active Voice Word Order

English, like many languages, is split into two voices – active and passive. Voice refers to the relation between the subject of the utterance and the action of its verb. In the active voice, the subject is the actor of the verb. In other words, the subject performs the action of the verb and usually effects that assertion onto some object or into some state. In the passive voice the opposite is true with the action of the verb being acted upon the subject.

i. Positive Statement

In positive statements in the active voice the subject assumes first position and the object last position. The content verb (V_2 in the diagram) occupies the rightmost verbal position and precedes the object. The auxiliary verb (V_1) precedes the content verb, usually immediately following the subject. In forms with more than one auxiliary, such as modal forms or utterances in the

perfected durational aspect, V_1 is the leftmost auxiliary with additional verbs in the construction taking V_2, V_3, and so on.

$$\underset{\text{S}}{\textbf{They}} \quad \underset{V_1}{\textbf{(do)}} \quad \underset{V_2}{\textbf{drink}} \quad \underset{\text{O}}{\textbf{wine.}} \quad \boxed{+}\,\boxed{\bullet}$$

ii. Positive Question

Positive questions in the active voice are identical in form to that of positive questions except that the position of V_1 and the subject are switched with V_1 taking first position and the subject taking second position.

$$\underset{V_1}{\textbf{Do}} \quad \underset{\text{S}}{\textbf{they}} \quad \underset{V_2}{\textbf{drink}} \quad \underset{\text{O}}{\textbf{wine?}} \quad \boxed{+}\,\boxed{?}$$

iii. Negative Statement

Negative statements in the active voice are identical in form to that of positive statements with the addition of the negative marker NOT inserted immediately preceding V_2 whether V_2 be the content verb or an intermediate auxiliary.

$$\underset{\text{S}}{\textbf{They}} \quad \underset{V_1}{\textbf{do}}\; \underset{\text{(neg)}}{\textbf{not}} \quad \underset{V_2}{\textbf{drink}} \quad \underset{\text{O}}{\textbf{wine.}} \quad \boxed{-}\,\boxed{\bullet}$$

Adverbial modal markers such as really also occupy this same position and if coupled with not occupy the position immediately preceding V_2 but to the right of the negative marker when the modal proposition is negated, or preceding the negative marker when the modal proposition modifies the negative assertion. Consider *They don't really drink wine* with *They really don't drink wine*. The two utterances have differing meanings depending on the position of the negative and modal markers. Also, note that the contracted form DON'T obscures the actual syntax of the utterance.

iv. Negative Question

Negative questions in the active voice are identical in form to that of positive questions with the addition of the negative marker NOT inserted immediately preceding V_2 whether V_2 be the content verb or an intermediate auxiliary.

Do   **they**   **not**   **drink**   **wine?**   (− | ?)
V_1 S   (neg) V_2 O

Negative questions are used primarily to verify what is thought by the speaker to be true. These forms behave in the same manner as negative statements in regard to negative and modal markers as discussed above.

v. Special Forms used with Interrogatives

Interrogatives – also called question words create slight changes in word order. These changes in the standard forms vary with the interrogative used and with whether the interrogative displaces the subject or the object, or whether it represents some further adverbial, adjectival, or prepositional qualification. Observe:

Who   **does**   **drink**   **wine?**   (+ | ?) WHO
Interrog. (S) V_1 V_2 O

What   **do**   **they**   **drink?**   (+ | ?) WHAT
Interrog. (O) V_1 S V_2

When   **do**   **they**   **drink**   **wine?**   (+ | ?) WHEN
Interrogative V_1 S V_2 O

Where   **do**   **they**   **drink**   **wine?**   (+ | ?) WHERE
Interrogative V_1 S V_2 O

How   **do**   **they**   **drink**   **wine?**   (+ | ?) HOW
Interrogative V_1 S V_2 O

Why   **do**   **they**   **drink**   **wine?**   (+ | ?) WHY
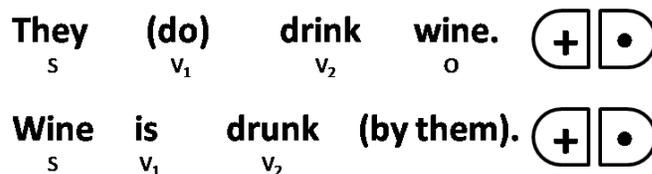Interrogative V_1 S V_2 O

In the first example, WHO displaces the subject and assumes first position. In the second example WHAT also takes first position but is displacing the object with the other components simply being moved one position to the right. In the other examples the interrogative represents an adverbial or prepositional qualification and thus falls outside of the scope of the original word order. It does not change that word order other than assuming a new first position to the left of the other components of the utterance.

b. Passive Voice Word Order

Unlike with the active voice, in which the actor of the verb is the focus, in the passive voice, the action of the verb as it affects the subject is the emphasized idea. This creates a form in which the verb of the assertion and the subject upon which the assertion acts are the primary components with the actor of the verb becoming optional information. All word orders, forms, and propositions that are possible in the active voice are possible in equivalent form in the passive voice.[3]

i. Structure

In converting an utterance from active to passive voice, the object of the active utterance becomes the subject, this is follow by a form of the auxiliary be maintaining the mood, tense, agreement, and aspect of the original utterance. This is followed by the content verb of the active utterance in past participle form, and finally an optional prepositional phrase specifying the subject of the active utterance as the actor. Compare the equivalent active and passive forms below:

$$\underset{\text{S}}{\textbf{They}} \quad \underset{\text{V}_1}{\textbf{(do)}} \quad \underset{\text{V}_2}{\textbf{drink}} \quad \underset{\text{O}}{\textbf{wine.}} \quad \boxed{+}\boxed{\bullet}$$

$$\underset{\text{S}}{\textbf{Wine}} \quad \underset{\text{V}_1}{\textbf{is}} \quad \underset{\text{V}_2}{\textbf{drunk}} \quad \textbf{(by them).} \quad \boxed{+}\boxed{\bullet}$$

3. Auxiliaries

English is said to have an **SVO** word order in which positive statements in the active voice have a primary structure of subject-verb-object. This structural guideline should be annotated to reflect the reality that English relies on a system of auxiliary verbs and that every utterance in English, in its raw form, has at least one content verb and at least one auxiliary which expresses tense, aspect, agreement for person and number, and mood. The utterances outlined above are annotated **S V_1 V_2 O** to reflect this. However a more realistic annotation would be **S V_{AUX} V_{CON} O** as depending on the mood and aspect of the utterance more than two verbs are used. The important attribute of annotation though, is that the rightmost verb in an utterance is the content verb while those to the left of the content verb are auxiliaries. Also, when more than one auxiliary verb are used, syntactic hierarchy[4] requires that the role and form of each auxiliary used is affected by the verb to its immediate left which subordinates it, and that the leftmost verb in the utterance will always maintain agreement for number, person, and tense with the subject.

Auxiliaries are an integral component in every utterance in English even though they are sometimes omitted or integrated into the content verb.[3] English allows abbreviated forms

which represent a sort of semantic shorthand in which a more complex utterance is expressed with fewer morphemes should be required for full syntactic expression of the full idea. These include reduction of periphrastic positive statements in the raw informational aspect (auxiliary DO + content) into an inflected form in which the content verb carries agreement for tense person and number. Compare the forms below:

i. She$_S$ do$\underline{es}$ $_{V_{AUX}}$ walk $_{V_{CON}}$ home. (+) (•)

ii. She$_S$ walk$\underline{s}$ $_{V_{CON}}$ home. (+) (•)

iii. She$_S$ di$\underline{d}$ $_{V_{AUX}}$ walk $_{V_{CON}}$ home. (+) (•)

iv. She$_S$ walk$\underline{ed}$ $_{V_{CON}}$ home. (+) (•)

In (ii), the auxiliary DOE$\underline{s}$ in (i) is omitted with its inflected agreement for person and number –$\underline{s}$ being appended onto the content verb which changes from non-inflected WALK to inflected WALK$\underline{s}$. Likewise the past tense inflection DI$\underline{D}$ in (iii) with its past-marking ending –$\underline{D}$ is appended onto content verb WALK in (iv) to form inflected WALKE$\underline{D}$. It should be noted that shortening of forms such as these are only possible in positive statements in the raw informational aspect. Utterances with the be as content verb, including copular constructions, and utterances in the active voice without an object, represent a more complex level of abbreviation and is discussed at length in *Voice in English: Semantic Implications of the Passive-Active Paradigm* (Ward 2007). The important thing to remember though is that, even when abbreviated to a form which obscures them, auxiliaries are always present in every English utterance as is evidenced by changing any of the inflected forms above into a different word order such as a negative or question.

Auxiliaries in English are grouped into three classifications based on their behavior, function, and effect on the utterances in which they appear. These classifications are Weak, Strong, and Neutral Auxiliaries and are discussed below.

a. Weak Auxiliaries

The weak auxiliaries in English are the verb DO, and its forms, DOES and DID, when used as an auxiliary. Weak auxiliaries are used to form the raw forms of the Informational Aspect. They have three main characteristics:

1. They do not affect the form of the verbs they subordinate. As weak auxiliaries can only subordinate content verbs in the raw Informational (or the content verb within a verbal modal phrase in this same aspect – see below) and these verbs in such constructions always occur in the finite form, there is no change brought about by these auxiliaries.

2. Their function, when combined with their subordinated finite content verb, can be represented by a specialized inflectional short form versus the raw periphrastic form in positive statements. In all other word orders, periphrasis is maintained (see examples in Section 3 above).

3. They are always displaced when the assertion is subordinated by other auxiliaries. Consider perfected forms of the Informational where DO is displaced by HAVE, with those of the Durational in which BE is retained, becoming the subordinate of HAVE. Consider also the modal form of the informational in which auxiliary DO is displaced by modal forms such as SHALL or BE + GOING.

b. Strong Auxiliaries

In English, the strong auxiliaries are the verb BE, and its forms, AM, IS, ARE, WAS and WERE, and BEEN, when used as an auxiliary; and the verb HAVE, and its forms, HAS and HAD when used as an auxiliary. Strong auxiliary BE is used to form the Durational Aspect while HAVE is used to form the perfected forms of both aspects. Strong auxiliaries have five main characteristics:

1. Unlike weak auxiliaries, they do affect the form of the verbs they subordinate. As strong auxiliaries are used in marking aspect, the verbs they subordinate must accept the form required by that aspectual structure. BE when used as an auxiliary, requires its subordinate verb be in the present participle form. Likewise, HAVE subordinates its target verb into the past participle.

2. Their function, when combined with their subordinated finite content verb, cannot be represented by inflected forms; periphrasis is maintained in all forms.

3. They are never displaced by other auxiliaries. They do displace weak auxiliaries and accept the required form of other auxiliaries which subordinate them.

4. Strong auxiliaries are positioned immediately preceding the verb they subordinate. There can be a modifier (adverb, prepositional phrase, or negative marker) between the auxiliary and its subordinate but the auxiliary always occupies the first verbal position to the left of the target verb.

5. There are two strengths of strong auxiliaries with the perfecting auxiliary HAVE taking precedence over durational auxiliary BE. When used together, BE always subordinates the content verb, but is itself subordinated by HAVE. HAVE can subordinate BE (perfecting the Durational Aspect), but BE cannot subordinate HAVE.

c. Neutral Auxiliaries

The final group consists of the modal auxiliaries which include any single verb or verbal phrase which functions as a unit to express modal proposition onto the assertion. The modals listed below are all neutral auxiliaries. They have three main characteristics:

1. They do not affect the form of the verbs subordinate except in requiring the subordinate to be in either finite or infinitive form. They do not cause a change in the verb beyond this.

2. They always take first (leftmost) verbal position in the syntactic hierarchy of the utterance. They subordinate the verb (content or auxiliary) immediately to their right.

3. Neutral auxiliaries cannot be subordinated by weak or strong auxiliaries and only some neutral auxiliaries, depending on their class, can be subordinated by certain other neutral auxiliaries.

III.   Modal Structural Classes

Modals in English are grouped together into structural classes based on their structure, behavior, and morphological effect on the utterance they modify. The term modal is used in place of modal verb or modal phrase because English uses quite a variety of forms both marked and unmarked to express mood; some of these are simple modal auxiliary verbs, others are partially inflected verbs, others still fully inflected verbs with modal functions in addition to their original meanings, and so on. So for the purpose of this discussion, a modal is any syntactically identifiable and separable unit that affects mood.

The classification scheme presented herein separates modals into structural classes based on eight attributes – traits common to all modals. These include number of forms, ability to express negation, verbal position within the syntactic hierarchy, their ability to subordinate other verbs or auxiliaries and any constraints on that ability, to accept subordination, and to express tense, and their overall structure,

and the required form of their subordinates. These eight characteristic traits define these sets of modals and their position and the behavior of other components in the utterance in which they appear.

As of this writing, nine overall structural classes have been identified for English modals with subclasses therein resulting in fifteen overall structural groupings into which all currently identified modals can be organized:

Class I: Germanic Modal Auxiliaries

Class Ia: Germanic Modal Auxiliaries with Præterite Form

Class Ib: Germanic Modal Auxiliaries without Præterite Form

Class II: Verbal Modals

Class IIa: Durational Aspect Verbal Modals

Class IIb: Informational Aspect Verbal Modals

Class IIc: Fully Inflected Verbal Modals

Class III: Phrasal Modals (Group 1)

Class IV: Phrasal Modals (Group 2)

Class IVa: Phrasal Modals (Group 2) – Durational

Class IVb: Phrasal Modals (Group 2) – Informational

Class V: Non-Declined Archaic Præterite

Class VI: Transitional Semi-Archaic Verbal Modals

Class VII: Reduced Verbal Modals

Class VIIa: Reduced Verbal Modals (Durational)

Class VIIb: Reduced Verbal Modals (Informational)

Class VIIc: Transitional Reduced Verbal Modals

Class VIII: Perfected Præterite Forms

Class IX: Præterite only forms

These classes are outlined and discussed below.

Class I: Germanic Modal Auxiliaries

Class I Modals are the most easily recognized modal verbs in English as the majority no longer have a standard use outside of their modal functions. These are the modal auxiliary verbs in English derived from the standard Germanic modal system. There are two sub-categories – Class Ia which includes modals such as SHALL/SHOULD, WILL/WOULD, CAN/COULD, MAY/MIGHT. Class Ia modals occur as present/præterite pairs (even though the present form is often used to express futurity). Class Ib modals on the other hand do not occur in the præterite and have only one form such as with MUST. Class I modals are often represented as having negative forms and these are usually represented as negative contractions with the modal verb: shall – shan't, will – won't, can – can't, etc but this is erroneous and will be explained below as a lack of negation is indicative of this class.

Class Ia: Germanic Modal Auxiliaries with Præterite Form

Class Ia includes modals which occur in present/præterite pairs. That is to say that they have two forms – one present and one past which allow for a limited flexibility in referencing tense within the context of the modal proposition they express. Modals of this class are SHALL/SHOULD, WILL/WOULD, CAN/COULD, MAY/MIGHT. Depending on the mood expressed, these modal pairs can have like or entirely differing meanings with either both forms of a pair expressing the same mood, or the two forms behaving independent of one another and expressing mood unique to that particular form. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Single	Single form in either present or coordinating præterite; otherwise not declined for person, number, tense, or aspect.
Negation	No	Affirmative only, does not occur in negative expression of mood. Can provide affirmative expression of mood toward negative proposition.
Verbal Position (hierarchy)	Always occupies 1st Position (V_1)	Modals of this class always occupy the left-most position in the syntactic hierarchy of the utterance and thus take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Always	Modals of this class subordinate all constructions to their right in the hierarchy of the utterance. All other modal classes and non-modal constructions must accept subordination from this class.
Accepts Subordination	Never	Class I modals always occupy left-most position in syntactic hierarchy and thus no other form can be placed before them. They can never be

		subordinated. Class I modals are incapable of subordination, even by other Class I modals.
Multiple Tense	Limited to Present/Præterite Coordinated Pair	Unlike fully declinable verbs, Class I modals may not be declined to reflect temporal reference to the T_{UTT}. Although these modals are most often used to express futurity, the verb itself appears in either a present tense form used to express the desired modality in a single tense – usually Modal Future. Class Ia modals occur in coordinated pairs of present and præterite forms which allow the Modal Future of the proposition to be applied to a past time or 'future of the past'.
Structure	Single Finite	Class I modals consist of a single-word undeclined verb in finite form.
Subordinate Form	Finite	Subordinated constructions take finite form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in finite form.

To clarify, Syntactic Hierarchy refers to the system by which syntactic components of an utterance modify or subordinate each other in English. Word order and order of subordination in English is from left to right with units to the right in a construction being subordinated or modified by units immediately to their left. This hierarchy operates in exactly the same way as mathematical hierarchy in algebra. Hierarchy is especially important when considering the role of negation in modal constructions.

Negative contractions are actually merely abbreviations of two semantically separate syntactic units. In the case of Class I modals seemingly negative forms are actually contractions of the modal with the initial (negative marking) component of the modal's subordinate. The left-to-right hierarchy precludes negation of Class I modals as is evidenced by the forms below:

a. I **will** <u>go to the store later</u>.
b. I **will** <u>not go to the store later</u>.
c. * I **no** <u>will go to the store later</u>.
d. ‡ I **will not** <u>go to the store later</u>.

For clarity, the left-most hierarchical unit is in bold while its subordinate is underlined. In (a) modal WILL subordinates the verb phrase 'go to the store later'. Likewise in (b) that same modal WILL subordinates a second whole verb phrase 'not go to the store later' which is a negative assertion versus the positive assertion in (a). WILL still modifies the assertion as what will be done is (affirmative) 'go to the store later' in the former and (negative) 'not go to the store later' in the latter. Note that the modality of the proposition of the utterance is not negated, but the assertion which the modal subordinates is.

In (c) NO occurs in left-most position attempting to modify 'will go to the store later', but this is not syntactically allowed because Class I modal WILL must always occur in left-most position and thus cannot be subordinated by NO. (d) is syntactically correct in structure, but the analysis given via the bold and

underlined markings makes it semantically incorrect as WILL NOT as a single modal unit does not exist. Will as is discussed in section 3.B.3 below expresses future as brought about by the will (wishes) of the subject (versus future brought about due to obligation to outside events or other modal influence). There is no logical opposite of future in that time moves forward regardless of action or attitude of the subject. So, the future is expressed by will and that future will exist as either an affirmative of the assertion (a) or as a negative of that same assertion (b) but short of the ability to stop time and create an alternative universe, (d) cannot logically be possible.

Finally, for the purposes of discussing modal effect on subordinate verbs, finite refers to the raw form of a verb often termed the 'bare infinitive' while infinitive refers to the TO + VERB construction.

Class Ib: Germanic Modal Auxiliaries with No Præterite Form

Class Ib modals behave identically to Class Ia modals as discussed above, but do not occur in the præterite and have only one form. The only modal of this class in current usage is MUST. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Single	Single form in the present; otherwise not declined for person, number, tense, or aspect.
Negation	No	Affirmative only, does not occur in negative expression of mood. Can provide affirmative expression of mood toward negative proposition.
Verbal Position (hierarchy)	Always occupies 1st Position (V_1)	Modals of this class always occupy the left-most position in the syntactic hierarchy of the utterance and thus take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Always	Modals of this class subordinate all constructions to their right in the hierarchy of the utterance. All other modal classes and non-modal constructions must accept subordination from this class.
Accepts Subordination	Never	Class I modals always occupy left-most position in syntactic hierarchy and thus no other form can be placed before them. They can never be subordinated. Class I modals are incapable of subordination, even by other Class I modals.
Multiple Tense	No	Unlike fully declinable verbs, Class I modals may not be declined to reflect temporal reference to the T_{UTT}.

Structure	Single Finite	Class I modals consist of a single-word undeclined verb in finite form.
Subordinate Form	Finite	Subordinated constructions take finite form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in finite form.

Class II: Verbal Modals

Class II Modals are the second most common modal form. The name verbal modal could be seen as a bit limiting, as all modals discussed in this paper are verbal in nature, but these particular modals take the name Verbal because they are the most flexible and thoroughly inflected modals, behaving very much like a non-modal verbal construction. They consist of verbal forms of otherwise non-modal verbs used in much the same way as Class I modals to affect the modality of the proposition they subordinate. All Verbal Modals are fully declinable for tense, number and person. Class IIa verbals occur only in the durational aspect, Class IIb occur only in the informational, and Class IIc verbals are fully declinable in both aspects; all may be perfected. Many modals that have historically been in Class IIb have shown a tendency, as the language as a whole has, to become fully declinable in both informational and durational aspects. For this reason many of the modals of Class IIb and IIc overlap and may be found in one but not the other, or both depending on the regional variety and usage. Class IId is nearly identical in structure and function to Class IIc, but differs from other Class II modals in that the subordinates of Class IId modals occur in finite form versus the infinitive for all other Class II modals. Class II modals are often said to be equivalent forms to Class I modals required for syntactic versatility not possible with Class I such as declining for tense and aspect. This is true in some cases, but not universally so, and is not true of future marking modals.

Class IIa: Durational Aspect Verbal Modals

Class IIa modals consist of the durational aspect auxiliary BE with modal content verb in present participle form. Class IIa modals are identical in form to those non-modal forms of the modal content verb in the durational aspect. They do not occur in the informational aspect. Through auxiliary be, Class IIa modals may be declined for person, number, and tense. Negation is also possible. The most well known modal of this class is BE + GOING. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Multiple	Multiple forms matching the non-modal forms of the content verb declined for person, and tense, within the durational aspect.
Negation	Yes	Occurs in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Immediately preceding subordinate.	Modals of this class always occupy the position to the immediate left of their subordinate in the syntactic hierarchy of the utterance. If not subordinated by another modal, Class II modals take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Sometimes	Modals of this class subordinate all assertions to their right in the hierarchy of the utterance. Other Modal Classes that do not preclude subordination must accept subordination from this class.
Accepts Subordination	Always from other modals, never by negative markers.	Class II modals always occupy left-most position in syntactic hierarchy not occupied by a subordinating modal. Thus no other form can be placed before them meaning they can never be subordinated by anything other than a modal, including a negative marker.
Multiple Tense	All	Class II modals may be fully declined for person and tense to reflect temporal reference to the T_{UTT}. Although these modals are most often used to express futurity, the verb itself appears in all tenses. When Class II modals of Futurity occur in non-present tenses they allow the Modal Future of the proposition to be applied to a past or future time as T_{EVL} referenced to the T_{AST} or 'future of the past' and 'future of the future'.
Structure	BE + PRESENT PARTICIPLE	Class IIa modals are structurally identical to the full declension and conjugation of the included content verb in the durational aspect and occur in both raw and perfected forms.
Subordinate Form	Infinitive	Subordinated constructions take infinitive form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in infinitive form.

As with Class I modals, Class II modals cannot be subordinated by a negative marker, however unlike Class I, this class is capable of expressing the negative of the proposed mood. Hierarchy is again important when considering the role of negation in these modal constructions. Unlike Class I Modals whose use in negative contractions yields a false sense of modal negation, Class II modals retain the inherent flexibility of their content verbs in that they have an included auxiliary which declines for person, tense, and can accept negation. For Class IIb modals, that auxiliary verb is BE which means that ISN'T, AREN'T, WASN'T and WEREN'T are valid negative contractions.

As discussed above, negative contractions are actually merely abbreviations of two semantically separate syntactic units. The left-to-right hierarchy creates an interesting situation in which negation of Class II modals can be interpreted in two ways:

a. She **is going** to talk about it.
b. She **is not going** to talk about it.
c. She **is not going** to talk about it.
d. She **isn't going** to talk about it.

Above, the left-most hierarchical unit is in bold representing the auxiliary verb of the modal while the content verb of the modal in present participle is underlined and in bold. The entire modal's subordinate is underlined but not boldface. In the above utterances the modal is BE+GOING (future intention) and the assertion is 'talk about it' with talk occurring in infinitive form as required for subordinates Class II modals. Had a Class I modal been used talk would be subordinated in finite form as in 'I should talk about it.' In the above form modals BE is declined for person and tense to IS, which then functions with the present participle GOING to create the volitional mood. Keeping to the left-to-right hierarchy IS can be said to subordinate the participle thus making it part of the modal form. In (e) IS subordinates GOING with the meaning "What is she? She is intending (to talk about it)." (f) and (g) introduce the concept of negative modality. Noting the underlined portions of the modal exemplifies the two possible ways in which a negative modal form could be interpreted. In (f) hierarchy has IS coordinating with NOT GOING as a single unit. This interpretation actually negates the mood itself creating a sort of *anti-intention*. Or, "What is she? She is 'not going' (to talk about it)." The interpretation of (g) is somewhat different. While still being negative, in this example IS is interpreted as modifying the negative marker NOT while NOT in turn modifies GOING or formulaically IS [NOT [GOING]]. Or with the same analysis as above "What is she? She is not (going to talk about it)." The contracted form in (h) is equally open to interpretation but in this case semantically matches the interpretation in (g).

Observe that the modal used is listed as BE+GOING and not BE+GOING+TO because TO is not part of the modal, but simply a result of subordination by a modal within this class, TO belonging to the subordinated verb.

Class IIb: Informational Aspect Verbal Modals

Class IIb modals consist of the informational aspect auxiliary DO with modal content verb in finite form. Class IIa modals are identical in form to those non-modal forms of the modal content verb in the informational aspect. They do not occur in the durational aspect. Through auxiliary DO, Class IIb modals may be declined for person, number, and tense. Negation is also possible. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Multiple	Multiple forms matching the non-modal forms of the content verb declined for person, and tense, within the informational aspect.
Negation	Yes	Occurs in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Immediately preceding subordinate.	Modals of this class always occupy the position to the immediate left of their subordinate in the syntactic hierarchy of the utterance. If not subordinated by another modal, Class II modals take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Sometimes	Modals of this class subordinate all assertions to their right in the hierarchy of the utterance. Other Modal Classes that do not preclude subordination must accept subordination from this class.
Accepts Subordination	Always from other modals, never by negative markers.	Class II modals always occupy left-most position in syntactic hierarchy not occupied by a subordinating modal. Thus no other form can be placed before them meaning they can never be subordinated by anything other than a modal, including a negative marker.
Multiple Tense	All	Class II modals may be fully declined for person and tense to reflect temporal reference to the T_{UTT}.
Structure	DO + FINITE	Class IIb modals are structurally identical to the full declension and conjugation of the included content verb in the informational aspect and occur in both raw and perfected forms.
Subordinate Form	Infinitive	Subordinated constructions take infinitive form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in infinitive form.

Class IIc: Fully Inflected Verbal Modals

At one time rare, Class IIc modals have been displacing class IIb modals as a dominant class. As is the trend with the language in general, many modals which would previously been used in the informational aspect only are now being used in both the informational as well as the durational aspect. For this reason no examples are listed for Class IIb, as within dialectal variation, most typically Class IIb modals have moved into Class IIc. Class IIc consists of verbal modals which are fully declinable for person, number, tense and aspect. They are the most versatile of all modal forms. Class IIc modals are identical in form to those non-modal usages of the modal content verb. Negation is possible. This class includes such modals as LIKE, WANT, and HAVE. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Multiple	Multiple forms matching the non-modal usage of the content verb fully declined for person, number, tense, and aspect.
Negation	Yes	Occurs in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Immediately preceding subordinate.	Modals of this class always occupy the position to the immediate left of their subordinate in the syntactic hierarchy of the utterance. If not subordinated by another modal, Class II modals take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Sometimes	Modals of this class subordinate all assertions to their right in the hierarchy of the utterance. Other Modal Classes that do not preclude subordination must accept subordination from this class.
Accepts Subordination	Always from other modals, never by negative markers.	Class II modals always occupy left-most position in syntactic hierarchy not occupied by a subordinating modal. Thus no other form can be placed before them meaning they can never be subordinated by anything other than a modal, including a negative marker.
Multiple Tense	All	Class II modals may be fully declined for person and tense to reflect temporal reference to the T_{UTT}.
Structure	Fully declinable.	Class IIc modals are structurally identical to the full declension and conjugation of the included content verb in the informational and durational aspects and occur in both raw and perfected forms.
Subordinate Form	Infinitive	Subordinated constructions take infinitive form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in infinitive form.

Class IId: Fully Inflected Verbal Modals

Class IId modals are rare and consist of the modal usage of LET and DARE in certain constructions. Class IId is nearly identical in structure and function to Class IIc, but differs in that the subordinates of Class IId modals occur in finite form versus the infinitive for all other Class II modals. As is the trend with the language in general, many modals which would previously been used in the informational aspect only are now being used in both the informational as well as the durational aspect. This is true of modals of Class IId, with use in both aspects possible in modern usage (although the informational aspect is still the more common form). Class IId consists of verbal modals which are fully declinable for person, number, tense and aspect and subordinate their target verbs into finite form. Negation is possible. The

most common form in this class is the use of LET as a modal of the hortative moods and often requires an indirect object. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Multiple	Multiple forms matching the non-modal usage of the content verb fully declined for person, number, tense, and aspect.
Negation	Yes	Occurs in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Immediately preceding subordinate.	Modals of this class always occupy the position to the immediate left of their subordinate in the syntactic hierarchy of the utterance. If not subordinated by another modal, Class II modals take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Sometimes	Modals of this class subordinate all assertions to their right in the hierarchy of the utterance. Other Modal Classes that do not preclude subordination must accept subordination from this class.
Accepts Subordination	Always from other modals, never by negative markers.	Class II modals always occupy left-most position in syntactic hierarchy not occupied by a subordinating modal. Thus no other form can be placed before them meaning they can never be subordinated by anything other than a modal, including a negative marker.
Multiple Tense	All	Class II modals may be fully declined for person and tense to reflect temporal reference to the T_{UTT}.
Structure	Fully declinable.	Class IId modals are structurally identical to the full declension and conjugation of the included content verb in the informational and durational aspects and occur in both raw and perfected forms.
Subordinate Form	Finite	Subordinated constructions take finite form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in finite form.

Class III: Phrasal Modals (Group 1)

Classes III and IV concern Phrasal Modals. Phrasal modals are thus named because they are formed in the same way as phrasal verbs. That is, they include a verb as the head of the compound attached to a non-verbal qualifier. That qualifier can be an adverb, adjective, or preposition (usually without object). Class IV: Phrasal Modals (Group 1) consist of the præterite form of the auxiliary verb HAVE + comparative adjective BETTER or superlative adjective BEST. Class III modals are not declinable for person, number, or

tense and only occur in the raw informational aspect. Even though the verbal component of Class III modals is a præterite form – HAD, modals of this class are only used to express their mood in present tense. The inflected form HAD is not separable into a periphrastic formation as HAD is an auxiliary and thus does not have an auxiliary itself to which agreement could be assigned. Class III modals are peculiar in that there is no modal content verb, only the auxiliary verb HAD. HAD and BETTER/BEST are separable within the modal form and movement of HAD and the subject of the utterance is evident in the various word orders without causing movement of BETTER/BEST. Negation of the mood is possible with the negative contraction HADN'T + BETTER/BEST being more common than HAD + NOT + BETTER/BEST. The contacted form is the preferred form for negative questions. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Single	Single form with auxiliary have in the præterite; otherwise not declined for person, number, tense, or aspect.
Negation	Yes	Occurs in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Always occupies 1st Position (V$_1$)	Modals of this class always occupy the left-most position in the syntactic hierarchy of the utterance and thus take first verbal position or V$_1$ regardless of tense or aspect.
Subordinates	Sometimes	Modals of this class subordinate all assertions to their right in the hierarchy of the utterance. They may also subordinate Class II & Class VI modals (when class VI modals appear in verbal modal form).
Accepts Subordination	Never	Class III modals always occupy left-most position in syntactic hierarchy and thus no other form can be placed before them. They can never be subordinated. Class III modals are incapable of subordination, even by Class I modals or other Class III modals.
Multiple Tense	No	Unlike fully declinable verbs, Class III modals may not be declined to reflect temporal reference to the T$_{UTT}$ although a present tense (current temporal reference) is inherent in the moods expressed.
Structure	HAD + BETTER/BEST	Class III modals consist of either comparative adjective BETTER or superlative adjective BEST, preceded by the verb BE, in a single form, not conjugated or declined for person, number, tense, or aspect.
Subordinate Form	Finite	Subordinated constructions take finite form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V$_1$ of that modal) occur in finite form.

Class IV: Phrasal Modals (Group 2)

Classes III and IV concern Phrasal Modals. Phrasal modals are thus named because they are formed in the same way as phrasal verbs. That is, they include a verb as the head of the compound attached to a non-verbal qualifier. That qualifier can be an adverb, adjective, or preposition (usually without object). Class IV: Phrasal Modals (Group 2) consists of STATIVE + ADVERB/ADJECTIVE constructions. Phrasal Modals vary in declinability with some being fully declinable in both aspects and others having only a single undeclined form.

Class IVa: Phrasal Modals (Group 2) - Durational

Class IVa modals occur only in the Durational aspect. They are fully declinable for person and tense within the durational and may be perfected. Class IVa modals would include constructions of the form stative + adverb in the durational aspect. However, no modals have yet to be identified that meet this classification. It is included merely to maintain continuity with other classes in which subclass (a) is durational, subclass (b) informational and subclass (c) fully inflected. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Multiple	Multiple forms matching the non-modal forms of the modal content verb (always a stative), declined for person, and tense, within the durational aspect; added to this is an adjective or adverb which together expresses mood.
Negation	Yes	Occur in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Immediately preceding subordinate.	Modals of this class always occupy the position to the immediate left of their subordinate in the syntactic hierarchy of the utterance. If not subordinated by another modal, Class IVa modals take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Sometimes	Modals of this class subordinate all assertions to their right in the hierarchy of the utterance. Modals of Classes II and VI may also accept subordination from this class.
Accepts Subordination	Always from modals, never from negative markers.	Class IV modals always occupy left-most position in syntactic hierarchy not occupied by a subordinating modal. Thus no other form can be placed before them meaning they can never be subordinated by anything other than a modal, including a negative marker.
Multiple Tense	All	Class IV modals may be fully declined for person and tense to reflect

		temporal reference to the T_{UTT}.
Structure	STATIVE + ADJECTIVE OR ADVERB	Class IVa modals consist of an adjective or adverb preceded by a stative verb, fully conjugated and declined for person and tense in the durational aspect in both raw and perfected forms.
Subordinate Form	Infinitive	Subordinated constructions take infinitive form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in infinitive form.

Class IVb: Phrasal Modals (Group 2) - Informational

Class IVb modals occur only in the informational aspect. They are fully declinable for person and tense within the informational and may be perfected. Class IVb includes modals such as BE + ABOUT, BE + HAPPY, BE + READY, BE + WILLING, etc (note that WILLING is an adjective in this case and not the present participle of the non-modal verb WILL). Modals of this class contain BE as their stative verb. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Multiple	Multiple forms matching the non-modal forms of the verb BE, declined for person, and tense, within the informational aspect; added to this is an adjective or adverb which together expresses mood.
Negation	Yes	Occur in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Immediately preceding subordinate.	Modals of this class always occupy the position to the immediate left of their subordinate in the syntactic hierarchy of the utterance. If not subordinated by another modal, Class IVb modals take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Sometimes	Modals of this class subordinate all assertions to their right in the hierarchy of the utterance. Modals of Classes II and VI may also accept subordination from this class.
Accepts Subordination	Always from modals, never from negative markers.	Class IV modals always occupy left-most position in syntactic hierarchy not occupied by a subordinating modal. Thus no other form can be placed before them meaning they can never be subordinated by anything other than a modal, including a negative marker.
Multiple Tense	All	Class IV modals may be fully declined for person and tense to reflect

		temporal reference to the T_{UTT}.
Structure	BE + ADJECTIVE OR ADVERB	Class IVb modals consist of an adjective or adverb, preceded by a stative verb, fully conjugated and declined for person and tense in the informational aspect in both raw and perfected forms.
Subordinate Form	Infinitive	Subordinated constructions take infinitive form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in infinitive form.

Class IVc: Phrasal Modals (Group 2) – Fully Inflected

Class IVc modals are phrasal modals with the form stative + adjective or adverb, in both informational and durational aspect in both raw and perfected forms. They are fully declinable for person, number, tense, and aspect. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Multiple	Multiple forms matching the non-modal forms of the modal content verb (always a stative), declined for person, number, tense, and aspect; added to this is an adjective or adverb which together with the stative, expresses mood.
Negation	Yes	Occur in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Immediately preceding subordinate.	Modals of this class always occupy the position to the immediate left of their subordinate in the syntactic hierarchy of the utterance. If not subordinated by another modal, Class IVc modals take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Sometimes	Modals of this class subordinate all assertions to their right in the hierarchy of the utterance. Modals of Classes II and VI may also accept subordination from this class.
Accepts Subordination	Always from modals, never from negative markers.	Class IV modals always occupy left-most position in syntactic hierarchy not occupied by a subordinating modal. Thus no other form can be placed before them meaning they can never be subordinated by anything other than a modal, including a negative marker.
Multiple Tense	All	Class IV modals may be fully declined for person and tense to reflect temporal reference to the T_{UTT}.
Structure	STATIVE + ADJECTIVE OR ADVERB	Class IVc modals consist of an adjective or adverb preceded by a stative verb, fully conjugated and declined for person, number, and tense in the

		informational and durational aspects, in both raw and perfected forms.
Subordinate Form	Infinitive	Subordinated constructions take infinitive form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in infinitive form.

Phrasal Modals differ slightly from other classes in that the inclusive verb acts as the syntactic head of the verbal phrase yet the semantic head of the compound lies primarily in the qualifier (adjective, adverb, or preposition) attached.

Class V: Non-Declined Archaic Præterite

Class V consists of a single modal, OUGHT. Class V is similar in function to Class I with the only difference being that Class I subordinates to the finite form versus the infinitive for Class V. As with certain Class II modals, the Class V modal ought is sometimes merged with the adjacent TO from the subordinate form reduced to –A; the reduced TO is appended to the modal OUGHT with no intervening T needed to maintain euphonism as OUGHT ends in a consonant cluster (OUGHT TO => OUGHTA). It should be noted however, that unlike Class VII, the reduction of OUGHT + TO to OUGHTA is only phonetic and orthographic and not semantic or syntactic. Thus, OUGHTA is not assigned to a separate class from OUGHT. Speakers who do exhibit common reduction of OUGHT + TO to OUGHTA do not maintain the reduction in question or false-negative contraction forms. This shows that OUGHTA is not recognized as a semantic unit unto itself. Still though it must be remembered that OUGHTA does contain the subordinated TO and thus while OUGHT subordinates take the infinitive, the finite form appears with OUGHTA.

Class V deals with a unique situation in which an archaic form has been retained in active modern usage. OUGHT is originally the præterite form of OWE. It is no longer used in that sense as OWE now declines as a regular verb: OWE, OWED, OWED. OUGHT has however maintained that archaic sense of owing in its modal usage, with OUGHT having a near mirrored semantic quality with SHALL and SHOULD in this sense. That is, that the proposition to be brought about owes its resolution to the situation at hand. As with Class I modals, OUGHT does not decline for person, number, or tense and thus does not employ an auxiliary verb. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Single	Single form in either present or coordinating præterite; otherwise not declined for person, number, tense, or aspect.
Negation	No	Affirmative only, does not occur in negative expression of mood. Can provide affirmative expression of mood toward negative proposition.
Verbal Position (hierarchy)	Always occupies 1st Position (V_1)	Modals of this class always occupy the left-most position in the syntactic hierarchy of the utterance and thus take first verbal position or V_1

		regardless of tense or aspect.
Subordinates	Always	Modals of this class subordinate all constructions to their right in the hierarchy of the utterance. All other modal classes and non-modal constructions must accept subordination from this class.
Accepts Subordination	Never	Class V modals always occupy left-most position in syntactic hierarchy and thus no other form can be placed before them. They can never be subordinated. Class V modals are incapable of accepting subordination, even by Class I modals.
Multiple Tense	No	Unlike fully declinable verbs, Class V modals may not be declined to reflect temporal reference to the T_{UTT}. Although these modals may be used to express futurity, the verb itself appears in præterite form.
Structure	Single Finite	Class V modals consist of a single-word in præterite form but otherwise undeclined.
Subordinate Form	infinitive	Subordinated constructions take infinitive form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in infinitive form.

As with other modals, an abbreviated construction in the form of a negative contraction traditionally exists, but is again, a false-negative with the NOT of OUGHTN'T belonging to the subordinated assertion and not the modal itself.

Class VI: Transitional Semi-Archaic Verbal Modals

Class VI consists of a modals which were historically Class I, but which have evolved into more declinable Class II modals. What makes these modals unique is that they have maintained usage in both classes so that they may behave as modals of either class would and thus are classed based on their behavior and structure as used.

There are currently two modals identified as falling into this classification – DARE and NEED. DARE maintains the traits of Class I, Class IIb, and Class IId; NEED, both Class I and Class IIc. Other rare modals may also be categorized as Class VI, but only if they have maintained both their original Class I usage and have attained an additional more declinable usage consistent with a different Class. For usage of Class VI modals, see the relevant guidelines for the Classes they traverse.

Class VII: Reduced-Form Modals

Class VII consists of idiomatic slang reductions of certain oft used modals. Class VII modals are similar in function to those modals from which they originate. There is no semantic difference between a Class VII modal and its root form from another class. The reduced forms differ from those of the root Class in that the modal content verb is phonetically and orthographically reduced while being appended with s

reduction of the infinitive marker TO from the root form's subordinate. Because TO has been semantically incorporated into the modal construction, all Class VII subordinates appear in finite form, whereas the original root classes require the subordinate to be of infinitive form.

Class VIIa: Reduced Verbal Modal (Durational)

Class VIIa consists of idiomatic slang reductions of Class IIa modals. They are identical in meaning and very similar in usage to the Class II modals from which they originate. There is no semantic difference between a Class VIIa modal and its Class IIa root form. The reduced forms differ from those of Class II in that the component present participle is phonetically and orthographically reduced with the –ING ending becoming –N and the adjacent TO from the subordinate of the Class II form reduced to –A; the reduced TO is appended to the reduced –ING with an additional N intervening to maintain euphonism (GOING TO => GONNA). Class VIIa forms requiring BE as their auxiliary verb with the content verb, originally in present participle form as required of the aspect, merged with the infinitive marker TO of the subordinate as described above. Because TO has been semantically incorporated into the modal construction, all Class VIIa subordinates occur in finite form. Otherwise Class VIIa behaves in exactly the same way as Class IIa. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Multiple	Multiple forms matching the non-modal forms of the root content, with the aspectual auxiliary verb BE declined for person, number, and tense, within the durational aspect.
Negation	Yes	Occurs in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Immediately preceding subordinate.	Modals of this class always occupy the position to the immediate left of their subordinate in the syntactic hierarchy of the utterance. If not subordinated by another modal, Class IIa modals take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Sometimes	Modals of this class subordinate all assertions to their right in the hierarchy of the utterance. Other Modal Classes that do not preclude subordination must accept subordination from this class.
Accepts Subordination	Always from modals, never from negative markers.	Class II modals always occupy left-most position in syntactic hierarchy not occupied by a subordinating modal. Thus no other form can be placed before them meaning they can never be subordinated by anything other than a modal, including a negative marker.
Multiple Tense	All	Class II modals may be fully declined for person and tense to reflect

		temporal reference to the T_{UTT}. Although these modals are most often used to express futurity, the verb itself appears in either all tenses. When Class II modals of Futurity occur in non-present tenses they allow the Modal Future of the proposition to be applied to a past or future time as T_{EVL} referenced to the T_{AST} or 'future of the past' and 'future of the future'.
Structure	BE + REDUCED PRESENT PARTICIPLE + REDUCED TO	Class IIa modals are structurally identical to the full declension and conjugation of the root content verb in the durational aspect and occur in both raw and perfected forms. Additionally the present participle of the root verb is reduced and appended by reduce infinitive marker TO from the subordinate.
Subordinate Form	Finite	Subordinated constructions take finite form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in infinitive form.

Currently this class includes only BE + GONNA, which is semantically identical to the root form BE + GOING (Class IIa). Note that as additional reduced forms gain acceptance semantic congruence may not be maintained, but for the current inventory of this class, equality of meaning between reduced forms and their root is the case.

Class VIIb: Reduced Verbal Modal (Informational)

Class VIIb consists of idiomatic slang reductions of Class IIb, or Class IIc modals when their reduced forms are declined only in the informational aspect. Class VIIb modals are similar in function to those Class II modals from which they originate. There is no semantic difference between a Class VIIb modal and its Class II root form. The reduced forms differ from those of Class II only in that the modal content verb is phonetically and orthographically reduced, with the final consonant removed. Currently the only modal in this category is want, with the terminal T removed leaving –N. The adjacent TO from the subordinate of the Class II form is reduced to –A; the reduced TO is appended to the reduced modal content verb with an additional N intervening to maintain euphonism (WANT TO => WANNA). Class VIIb modals include DO as their auxiliary with DO being declined for person, number and tense within the informational aspect. Because TO has been semantically incorporated into the modal construction, all Class VIIb subordinates occur in finite form. Otherwise Class VIIb behaves in exactly the same way as Class IIb or Class IIc (depending on the subclass of the root form). Modals of this class have the following characteristics:

Trait	**Value**	**Description**
Form	Multiple	Multiple forms matching the non-modal forms of the root content verb

		declined for person, and tense, within the informational aspect.
Negation	Yes	Occurs in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Immediately preceding subordinate.	Modals of this class always occupy the position to the immediate left of their subordinate in the syntactic hierarchy of the utterance. If not subordinated by another modal, Class IIa modals take first verbal position or V_1 regardless of tense or aspect.
Subordinates	Sometimes.	Modals of this class subordinate all assertions to their right in the hierarchy of the utterance. Other Modal Classes that do not preclude subordination must accept subordination from this class.
Accepts Subordination	Always from modals, never from negative markers.	Class VII modals always occupy left-most position in syntactic hierarchy not occupied by a subordinating modal. Thus no form than a subordinating modal may be placed before them meaning they can never be subordinated by anything other than a modal, including a negative marker.
Multiple Tense	All	Class VII modals may be fully declined for person and tense to reflect temporal reference to the T_{UTT}. Although these modals are most often used to express futurity, the verb itself appears in either all tenses.
Structure	DO + REDUCED MODAL CONTENT + REDUCED TO	Class VIIb modals are structurally identical to the full declension and conjugation of the root content verb in the informational aspect, but occur in raw forms only; perfected forms are not possible with the reduced construction. Additionally the content verb of the root modal is reduced and appended by the reduced infinitive marker TO from the subordinate.
Subordinate Form	Finite	Subordinated constructions take finite form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in infinitive form.

WANNA is currently the only modal within this class and is semantically identical to the root form WANT (Class IIc). Note that as additional reduced forms gain acceptance semantic congruence may not be maintained, but for the current inventory of this class, equality of meaning between reduced forms and their root is the case. It should also be observed that Class VIIb WANNA which is only declinable within the Informational aspect, has as its root form Class IIc WANT, which is declinable in both Informational and Durational aspects. Currently no form within Class VII occurs in both aspects.

Class VIIc: Transitional Reduced Modals

Unlike Classes VIIa and VIIb, which are comprised of reduced forms of Class II modals, Class VIIc consists of idiomatic slang reductions of Class VIII modals. Class VIIc modals are similar in function to those Class

VIII modals from which they originate. There is no semantic difference between a Class VIIc modal and its Class VIII root form. Unlike the first two subclasses however, Class VIIc modals do differ from their root forms in structure. As with other Class VII modals, these reduced forms differ from those of Class VIII in that they are phonetically and orthographically reduced. The only Class VIII modal is HAVE + GOT, a unique form in which the perfecting auxiliary have is joined to the præterite content verb got. The form of the content verb is the key identifying factor for Class VII modals and the same is true with this class. The difference however, is that the content verb is not reduced, but rather simply merged with the adjacent TO from the subordinate of the Class VIII form, which is reduced to –A; the reduced TO is appended to the terminus of the modal content verb GOT, with an additional T intervening to maintain euphonism (GOT TO => GOTTA). Because TO has been semantically incorporated into the modal construction, all Class VII subordinates occur in finite form.

Class VIIc is referred to as transitional because it possesses an added level of complexity brought about by speaker reanalysis of the reduced form as an independent morpheme. GOTTA is sometimes analyzed as the equivalent of GOT + TO with its original form using the perfecting auxiliary HAVE, in which cases it behaves and is declined exactly as its Class VIII root. GOTTA is also analyzed by some speakers as if it were a morpheme separable from its original form. In this reanalysis, the perfecting auxiliary HAVE is replaced with informational aspect auxiliary DO. As with HAVE + GOT, DO + GOTTA is inflected for person and number but only within the present tenses. As is the case with Class II modals with DO as the auxiliary, periphrastic DO + GOTTA is sometimes expressed as an inflected form. In positive statements, DO + GOTTA is sometimes inflected as GOTTA (with no auxiliary) in the first, second, and plural third person (as 1st 2nd and plural agreement is marked with a Ø ending on the auxiliary and thus also in the inflected form). Even more rarely, in equivalent 3rd person singular constructions an inflected GOTSTA is sometimes attested to, in which the 3rd person singular marking –S from auxiliary DOES is appended to the end of the root content verb GOT, preceding the second T. The fact that the root verb GOT and not the entire reduced form GOTTA is inflected, shows that speakers do still recognize the root verb as integral even if using reduced forms.

Class VIII: Perfected Præterite Forms

Class VIII consists of a single abnormal modal construction HAVE + GOT, which outside of its modal usage should be grammatically incorrect, but has come to be accepted. At some time during the late 19th Century, HAVE (as a content verb), the primary verb of possession in English began to be displaced in some varieties by the perfected Informational Aspect forms of GET – the primary verb of receiving or obtaining, HAVE + GOTTEN. This substitution is a logical one, as something that is possessed must have been previously obtained or received. During the 20th Century some varieties experienced a widespread reduction in verbal forms, dropping the past participle as a separate form and using the præterite for both. This change, which is still continuing, has been especially strong in the varieties of the United Kingdom and Ireland, where use of the past participle is in many cases the exception rather than the

norm. In other English speaking areas, the change has been considerably less, with past participle forms being retained in most usage. One notable exception is HAVE + GOT. HAVE + GOTTEN, as the perfected informational of get, with its meaning of receive or obtain is near universal in North American and African dialects and still present in some higher registers within the UK, with others using HAVE + GOT universally (Australia and New Zealand are not mentioned as the prevalence of the participle replacement depends greatly on when the speaker or their immediate ancestors immigrated from the UK). HAVE + GOT though, as a verbal form expressing possession (with GOT in lieu of GOTTEN) appears to be universal. It is the preferred manner of expressing possession in the UK and even though fully inflected HAVE is the predominate form in North America, HAVE + GOT still enjoys widespread use.

In much the same way that HAVE + GOT has supplanted or augmented HAVE as an expression of possession, it too, has done so for modal HAVE. Modal HAVE, a Class IIc usually expressing an obligative mood, is fully supplanted by HAVE + GOT in some varieties (usually those in which possessive HAVE + GOT has replaced possessive HAVE), while in others it hold equal semantic value, and in others still, expresses a higher degree of obligation than HAVE. While not expressing a perfected idea, HAVE + GOT is declined in much the same way as a perfected informational would be except with a more limited flexibility. Agreement with person and number is maintained via the auxiliary HAVE, allowing for the forms HAVE + GOT and HAS + GOT. HAVE + GOT however, cannot be declined for tense nor can it accept subordination from another modal, giving modal HAVE + GOT considerably less versatility than possessive HAVE + GOT or modal HAVE.

In some varieties, particularly in those of North America, the auxiliary HAVE of HAVE + GOT is dropped in positive statements. As with Class IIa BE + GOING, and Class Class IIc WANT, HAVE + GOT is often reduced, to form HAVE + GOTTA. Further changes in this form include reductions in which auxiliary HAVE is dropped and actually replaced with auxiliary DO. These behaviors create an added unique reduced class discussed above as Class VIIc. Modals of Class VIII have the following characteristics:

Trait	Value	Description
Form	Multiple	Multiple forms matching those of the non-modal forms of the equivalent verbal construction. In this case, the perfect marking auxiliary HAVE, declined for person and number, and the præterite form of the modal content verb.
Negation	Yes	Occurs in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position (hierarchy)	Always occupies 1st Position (V_1)	Modals of this class always occupy the left-most position in the syntactic hierarchy of the utterance and thus take first verbal position or V_1
Subordinates	Sometimes	Modals of this class subordinate all constructions to their right in the hierarchy of the utterance. Classes II, IV, and VII modals, and non-modal constructions must accept subordination from this class.
Accepts Subordination	Never	Class VIII modals always occupy left-most position in syntactic hierarchy and thus no other form can be placed before them. They can never be subordinated. Class VIII modals are incapable of accepting subordination, even by Class I modals.
Multiple Tense	No	Class VIII modals may not be declined to reflect temporal reference to the T_{UTT}. They are used in present tenses only.

Structure	HAVE + PRÆTERITE	Class VIII modals consist of the perfecting auxiliary HAVE plus a præterite form matching that of the modal content verb in the past tense of the raw informational aspect. HAVE is inflected for person and number. The verbal phrase may appear in all word orders.
Subordinate Form	Infinitive	Subordinated constructions take infinitive form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V_1 of that modal) occur in infinitive form.

Class IX: Præterite Only Forms

Class IX consists of modal expressions with only præterite form. They exist in periphrastic DID + MODAL CONTENT VERB and as the inflected content verb alone. Modals in this class exist only in the raw Informational Aspect and unlike most other modal classes also only exist in a single tense – the præterite. The only modal currently in this class is USED (and DID + USE). USED, when appearing as a modal expresses a mood in English by which the assertion is said to have been true in the past but not true in the present. When the assertion expresses a habitual action, the meaning is more one of something being normal (or the norm) in the past but not normal in the present. Likewise, as it consists of a modal verbal phrase in which did is the auxiliary, it can be negated thus providing the opposite meaning of the mood – that something was not true in the past but is true in the present. As with other negatable modals, point of negation within the syntactic hierarchy determines whether the mood or the assertion is negated. '*I used to drink beer'* expresses that drinking beer was normal for the speaker in the past but is not now. Conversely, *'I used to not drink beer'* expresses that not drinking beer was normal in the past but is no longer the case. In these examples the mood is affirmative, with the assertion being either affirmative or negative. Compare this with *'I used to drink beer,'* and *'I didn't use to drink beer'* in which the assertion is affirmative in both utterances, but the mood is negated with the first meaning that drinking beer was normal in the past but is not now, and the second meaning that drinking was not normal in the past but is normal now.   Because these modals only occur in the raw informational aspect, and because the informational aspect auxiliary do has only one from did in the past tenses, Class IX modals do not decline for person, number, or tense and thus have only a single inflected form, or a single periphrastic form which can be used in the various word orders listed in Section 2 above. Modals of this class have the following characteristics:

Trait	Value	Description
Form	Multiple	Multiple forms (either inflected or periphrastic) consisting of the modal content verb in the præterite; otherwise not declined for person, number, tense, or aspect.
Negation	Yes	Occurs in both affirmative negative expression of mood. Can provide affirmative or negative expression of mood toward affirmative and negative propositions.
Verbal Position	Always occupies	Modals of this class occupy the position to the immediate left of their

(hierarchy)	1st Position (V$_1$)	subordinate in the syntactic hierarchy of the utterance. If not subordinated by another modal, Class IX modals take first verbal position or V$_1$ *
Subordinates	Always	Modals of this class subordinate all constructions to their right in the hierarchy of the utterance. Classes II, IV, and VII, and non-modal constructions must accept subordination from this class.
Accepts Subordination	Never	Class IX modals always occupy left-most position in syntactic hierarchy and thus no other form can be placed before them. They can never be subordinated. Class IX modals are incapable of accepting subordination, even by Class I modals. *
Multiple Tense	No	Unlike fully declinable verbs, Class IX modals may not be declined to reflect temporal reference to the T$_{UTT}$ as a past tense (earlier temporal reference) is inherent in the meaning of the modal.
Structure	Inflected or periphrastic præterite	Class IX modals consist of a præterite form matching that of the modal content verb in the past tense of the raw informational aspect in inflected or periphrastic form with all word orders possible.
Subordinate Form	infinitive	Subordinated constructions take infinitive form in the left-most verbal position. If this left-most position of the subordinate is occupied by an additional modal, that modal (or in the case of declined modals, V$_1$ of that modal) occur in infinitive form.

* In nonstandard usage it is possible for used to subordinate certain Class I modals in the præterite. In these odd formations the Class I modal is prefixed with a false infinitive marking to. Consider: 'Can you climb a tree?' having the possible response 'I used to could, but I can't anymore.' In this utterance could as a modal of past capability is expressed as true for the speaker in the past but not in the present. In much the same manner, præterite Class I modals such as could and would are sometimes used to subordinate used to with much the same intended meanings. Again these are nonstandard. These are semantically redundant constructions as both could and used to alone would express the same combination of meanings, but does appear in some regional varieties and thus merits discussion here.

Class X $^+$: Undefined

As of this writing only nine classes have been identified. However, as the modal nature of English is in constant flux, and as recent language change has shown a propensity for movement of modal expressions from unmarked to marked verbal forms, it is likely that more modals than those identified above exist and shall likely move into common usage. Many of these will likely fit into the structural classifications above, but in the event that any newly discovered modals were to not match the structural constraints of the aforementioned classes, new classes shall have to be added and defined.

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