

The Raising/Control Distinction and the Pragmatic Nature of Modals

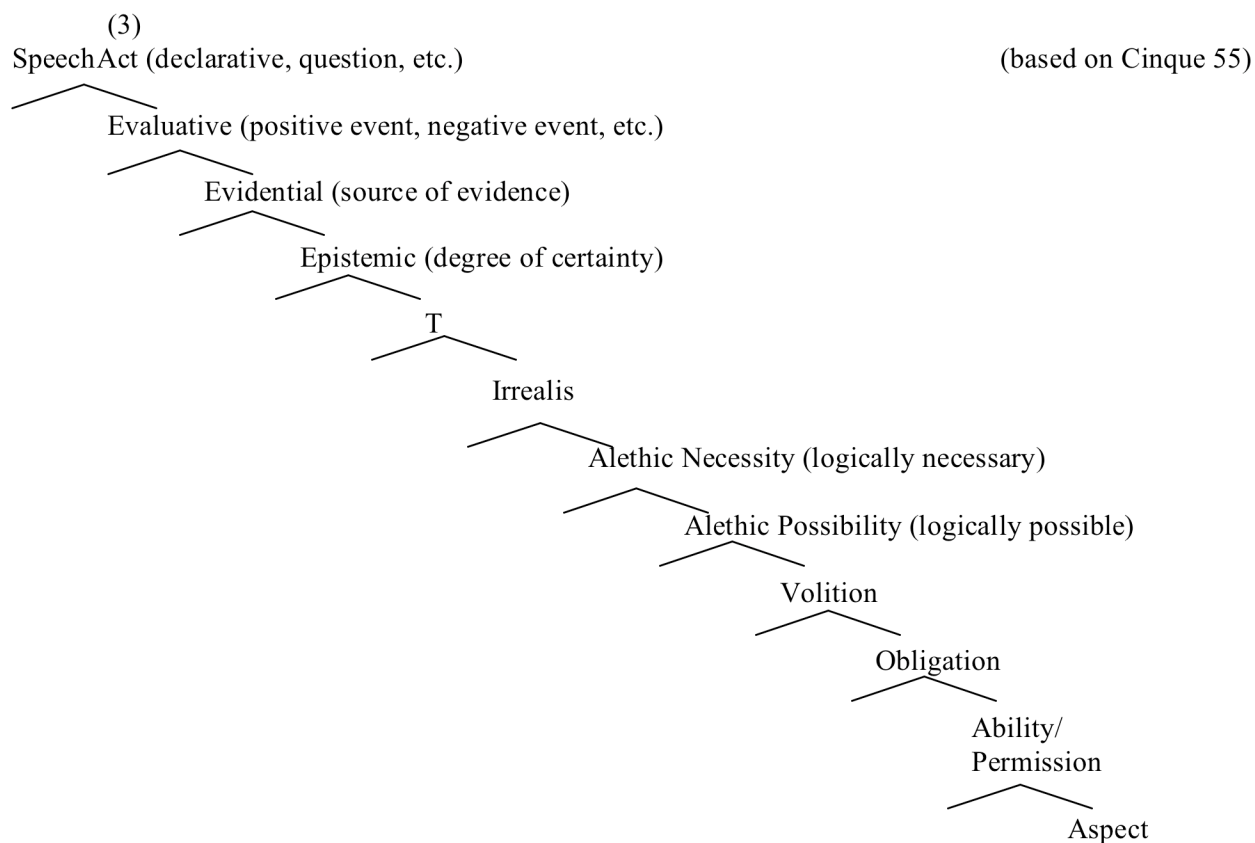
Sumayya Racy, University of Arizona

This paper concerns the classification of modals (e.g. *must*, *can*, *may*) as raising verbs and as control verbs, and argues in favor of a semantico-pragmatic approach to understanding modality. Epistemic modals pertain to speaker certainty (e.g., some situation logically must be the case, etc.). Root modals are those which pertain to obligation, desire, ability, and permission (e.g. someone is able to do something, etc.). Some authors, such as Drubig (2001), argue that epistemic modals should be viewed as raising verbs and that root modals should be viewed as control verbs (an asymmetrical analysis). Others, such as Wurmbrand (1999) argue that all modals should be viewed as raising verbs (a symmetrical analysis). Both authors present syntactic arguments for their viewpoints. But I demonstrate that there is a certain degree of language variability with respect to the syntactic criteria. I suggest that a semantico-pragmatic approach is more fruitful when addressing the classification of modals. In (1), we can see that a root modal, such as obligation-*must* allows only a subject which may act with intention. In (2), we can see that an epistemic modal, such as certainty-*must*, allows both agentive and non-agentive subjects.

- (1) a. Sally must glide in the door!
b. # The chair must glide in the door!
- (2) a. John must be home by now; I can see his car in the driveway.
b. The furniture must be in the office by now; it's already 4:00.

However, when we consider an appropriate context, (1b) becomes acceptable, as when a director is giving an order to a stagehand. Applying other raising/control tests to modals in other languages reveals yet a higher degree of variability.

Cinque (1999) argues for a hierarchy of functional projections below C, including the syntactic heads which contain modals. This is illustrated below.



These higher functional projections seem to be sensitive to discourse in ways that lower projections are not. Because of this, I suggest that root modals must connect up with appropriate arguments in the discourse.

This is in line with Langendoen's (2002) analysis of the logical form of modals, whereby root modals bear coindexation with arguments. In this work, the author presents a logical analysis of modal operators, where expressions of possibility, ability, and permission (which may be expressed by *may*, *might*, *can*, *could*) are all fundamentally derived from logical possibility (represented as \diamond). Thus, for example, $\diamond P$ means *it is possible that P happens*. If we modify the \diamond operator to be $\diamond a$, or *ability*, then we may get $\diamond a(P(i))$, or *individual i is able to do P*, where the logical representation contains the indexical *i*, which links up with some individual in the discourse—the one who has the ability. Similarly, expressions of necessity and obligation are fundamentally derived from logical necessity (represented as \square). I present all of Langendoen's operators below:

- (4) $\diamond P$ = 'it is possible that P happens'
 $\diamond a(P(i))$ = 'individual *i* is able to do P'
 allow-*h*($P(i)$) = $\diamond d?(P(i))$ = 'individual *h* allows/permits individual *i* to do P'

 $\square P$ = 'it is necessary that P'
 require-*h*($P(i)$) = $\square d?(P(i))$ = 'individual *h* requires/obligees individual *i* to do P'

The arguments that link up with the operators may be either syntactically present or discourse-prominent.

I argue that this pragmatic aspect of modals is the most important factor in their classification, which is in line with approaches such as that of Papafragou (2000). Specifically, whether they behave like raising or control verbs in any given language is the result of language-specific properties and the crucial identifying property of modals is semantico-pragmatic in nature. Overall, this paper argues for a rich but restricted connection between syntactic structure and semantic interpretation on the one hand, and discourse factors on the other.

References:

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