

Stativity and ‘Present Tense’ Epistemics

Gillian Ramchand

University of Tromsø/CASTL

The Observation: There are a number of well known linguistic environments where English shows a strong state vs. event distinction, lumping together dynamic eventualities of different telicity specifications against states (cf. Bohnemeyer and Swift 2004 for a classification of English in these terms, as opposed to ‘telicity’ sensitive languages). Summarizing: only states allow for a Universal reading of the perfect, where the eventuality is interpreted as continuing from a past time up to and possibly including the speech time (see Portner 2003); only states allow an ‘ongoing at speech time’ interpretation for the present tense, while events require the progressive for the ongoing reading and get habitual readings in the present tense (Dowty 1979); in discourse sequencing, dynamic eventualities in English are non-overlapping (tending to advance the topic time), while states produce overlapping predications with the previously mentioned eventuality (cf. Kamp and Rohrer 1983 for Romance). It is relevant to note that with respect to these tests, both progressive and perfects pattern as ‘states’ in English (see also Hallmann 2010), while passives pattern as ‘events’. In this paper, I add the following novel empirical generalization to this set of stativity sensitive phenomena in English:

Epistemic Stative Sensitive (ESS) Modals: ESS Modals are those that are technically ambiguous between an epistemic and circumstantial interpretation, but can only get that epistemic interpretation when combined with a stative preajacent

An example of an ESS Modal, *must*, is shown in (1) below.

1. a. Eeyore must be sad/in the field. (epistemic or obligational (future-oriented))
- b. Eeyore must go to Christopher Robin’s party. (only obligational)

An example of a non-ESS Modal, *might* is shown in (2).

2. a. Eeyore might be sad/in the field. (epistemic (present) or epistemic (future))
- b. Eeyore might go to Christopher Robin’s party. (epistemic future)

In the case of ESS Modals, the possibility of an epistemic reading correlates with the ‘present’ orientation of the modal anchor (in the sense of Condoravdi 2002), while in the non-ESS modal it does not. I show that this is not just an isolated quirk, but that there is a whole class of ESS Modals in English, and that the generalization applies to derived states (including by hypothesis the progressive and the perfect) as well as to lexical ones.

This paper proposes an answer to the following two questions. How can a constrained theory of modal compositional interpretation be combined with an analysis of stativity so as to derive the distribution of epistemic interpretations here? What is the role of the specific modal’s lexical contribution in delivering this result, given that not all modals are ESS Modals?

Background: Hacquard (2007) has already made an important and influential proposal concerning systematic modal ambiguity and its relation to structure. Her idea is to relate the semantic differences to differences in event anchoring, which is sensitive to the height of the modal in question. Specifically, she claims that when the modal is speaker-oriented, it is keyed to the speech time and receives an epistemic interpretation; when the modal is attitude holder- oriented, it is keyed to the attitude time and receives an epistemic interpretation and when the modal is subject-oriented, it is keyed to the time provided by Tense and receives a root interpretation. However, as it stands, Hacquard’s account does not allow us either to understand the state sensitivity of the epistemic reading, or to distinguish between ESS and non-ESS modals in a principled way. One further ingredient is necessary, as well as a formal grammatical distinction between two different types of modals.

The Analysis: The intuition I will pursue here is that there is something about epistemic modals like *must* that is stubbornly indexical, just like the present tense in English. Further, the analysis will follow Kratzer (2008) in claiming that propositions are not sets of possible worlds, but are rather characteristic functions (sets of) of *situations*. Under this view, situations have time, world and location parameters and can be modified by both temporal and modal operators. Situations are smaller and more specific than worlds, and have no transworld reality except via the ‘counterpart’ relation of Lewis (1986). Using situations, the schematic representation for the semantics of a modal would thus be as in (3) below, where ‘Acc’ is the Kratzerian accessibility relation.

(3) *MODAL*: $\lambda p \lambda s_c QUANT s' [Acc(s_c)(s')][p(s')]$

The analysis employs two main modifications: (i) in addition to standard pragmatic considerations, the Accessibility relation is further constrained by the syntax to only allow ‘alternatives’ to the situation denoted by the prejacent, where the alternatives are constructed by varying only the values of the situational parameters that still left open at that syntactic height. The intuition is thus similar to the construction of classical Roothian alternatives (Rooth 1996), but where the ‘alternatives’ are built from varying values of the parameters of the situational description, and whose availability for manipulation is sensitive to syntactic height. (ii) modals will vary with respect to whether their ‘topic’ situation (s_c in the above representation) is necessarily identified with the utterance situation s^* (indexical modals, or ESS Modals) or not (anaphoric modals, or Non-ESS Modals).

Accessibility Relations: Epistemic vs. Circumstantial. Epistemic modality will be defined as quantifying over modal alternatives based on the properties/facts left open by incomplete knowledge, and not over alternatives based on world or time. In other words, in epistemic interpretations, the topic situation is one which contains only the information known to the speaker/epistemic centre and is not an exhaustive description of the relevant facts in the real world. Situational alternatives are not constructible by varying worlds and times anymore once we are above the T node, but alternatives *are* constructible by varying the facts and properties that are ‘still in play’ epistemically, as Werner (2006) puts it. One might call these alternative situations ‘ignorance-alternatives’ for convenience. Epistemic readings will thus be related to structural height because of the fact that the modal in question will combine with the situational complement *after* the time and world variables have been specified. (The proposal is thus similar, though not identical to Hacquard 2007, and exploits much of the same intuition).

Anchoring Relations: Indexical vs. Anaphoric. The T head (abstractly construed) establishes a relationship between the topic situation s_c and the situational anchor of the clause s^* . The natural assumption then is that modals are also endowed with information that establishes such a relationship. Compare also Iatridou (2000) (and Isard 1974) on past tense morphology as a manifestation of the more general semantic category REMOTE. However, unlike Iatridou (2000), I propose that the basic relational distinction is not between IDENTITY and REMOTE, but between INDEXICAL and ANAPHORIC.

INDEXICAL: Topic situation is identified directly with the deictic anchor, the utterance situation.

ANAPHORIC: Topic situation must have its reference resolved *anaphorically*, either by binding from something in the linguistic context, or to some purely discourse contextual topic situation.

Anaphoric reference thus covers many different modes of reference resolution. It reflects the basic cut in the pronoun system between indexical forms like *I* on the one hand, and non-indexical ones like *he/she/it* on the other, regardless of the means of reference assignment of the latter.

States. Finally, we need to assume that in English, the present tense relates topic situations via an identity relation to an utterance situation with a single ‘now’ moment. If the meaning postulates distinguishing states from events are as claimed in Taylor (1977), this means that the simple present tense in English will only combine with states (basic or derived). (“If α is a *stative* predicate, then $\alpha(x)$ is true at an interval I just in case $\alpha(x)$ is true at all moments within I ; (ii) If α is an *eventive* predicate, then $\alpha(x)$ is only true at an interval larger than a moment. (after Taylor 1977)”). ESS Modals, being indexical, or ‘present tense- y ’, will only allow their epistemic readings for situations whose time parameter can be identified with ‘now’, i.e. states.

The main proposal of this paper is that we must acknowledge a new dimension of meaning for modals alongside the traditional Kratzerian parameters of quantificational force, modal base and ordering source. This is the parameter that relates to the ways in which the modal perspective situation is anchored to the utterance situation (indexical vs. anaphoric). Time permitting, I will show how this distinction has further consequences for explaining the differing behaviour of modals in embedded contexts, where the epistemic centre can be relativized to the higher attitude holder.