Background: This work discusses a difficulty for Hacquard’s semantics for modal auxiliaries and proposes a novel solution within her event-relative framework, contributing to the discussion of the temporal orientation of modals. One of Hacquard’s innovations in [4], [5] was to reconfigure modal bases and ordering sources to take an event as opposed to a world argument, which in turn constrain the modal’s flavor. Epistemic modals sit high in the clause (above Tense) and take the speech event as an argument, yielding an epistemic modal base as in (1a). Root modals sit low (below Tense and Aspect), take the vP event as an argument, and yield circumstantial modal bases as in (1b). This permits modals’ lexical entry to be uniform as in (1c), despite the difference in aspect sitting above the root modal, existential quantification of the vP’s event argument takes (EIP): The Event Identification Problem

Problems.


e


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The Proposal: Here’s a quick diagnosis of the problem. (2a) has a present perspective but a future orientation; we don’t get this easily if the vP event is also the source of the modal’s parameters. OP suggests that we want \( \text{CIRCUMSTANCE}_e \) to be present for fixing the perspective, but \( \text{MODAL}_e \) to be future, for securing the orientation. EIP suggests that we shouldn’t identify \( \text{CIRCUMSTANCE}_e \) with \( \text{MODAL}_e \). We can avoid OP and EIP if we i) differentiate the circumstances from the modal event, ii) reify the circumstance state such that it has its own event argument introduced by a vP-shell sitting above vP, and iii) relate this to the modal event in a way that captures the latter’s future orientation.

\[
\begin{align*}
\text{(3)} & \quad \text{a. } [vP_2] = \lambda e_2. \lambda P. \exists e_1 [P(e_1) \land R(e_2, e_1)] \\
& \quad \text{b. } [TP \text{ PRES } AspP \ \text{IMPF } [\text{Mod MUST } [vP_2 [\text{vP_1 John go to the store }]]]] \\
& \quad \hspace{1cm} = \exists (e_2) [t \subseteq \tau (s) \land t = t_0 \land \forall w' \in \text{BEST}_t (e_2) (\exists \lambda (f(e_2)): \exists (e_1) [\text{John-go-to-store'}(e_1)] \\
& \quad \hspace{3cm} \land \text{CAUSE}(e_2, e_1) (w') = 1] ]
\end{align*}
\]

Our proposal draws on work by Homer [6], Copley [3], and Matthewson [8]. From Homer, we adopt the idea that root modals have their own event argument. Matthewson argues that modals themselves are not future-oriented and have an independent mechanism to secure the future orientation. However, she proposes a prospective aspect operator for this. On the event-relative framework, prospective aspect would solve OP, but EIP would remain. (Likewise, Hacquard’s favored semantics for IMPF would bypass OP but not EIP.) The present proposal adopts her insight that an independent mechanism is responsible for future orientation, which we secure in (3a) by a temporal predicate relating \( e_2 \) to \( e_1 \). The mechanism we propose owes to Copley’s causal chain analysis of futuretates, and identifies \( R \) with the predicate CAUSE (cf. (3b)) to get the temporal relation right.

The proposal embodied in (3) is a coercion claim. Unlike Homer, we don’t assume that root modals introduce a new event argument. Not all English root modals are future-oriented, nor do their perspective always differ from their orientation. Prejacents with stative predicates (like those in (4)) can have present perspective and present orientation, and do not give rise to OP or EIP.

\[
\begin{align*}
\text{(4)} & \quad \text{a. There should to be world peace.}
\end{align*}
\]

b. Milton, you should be alive at this hour! (paraphrased from Wordsworth)

Our idea is that root modals themselves do not affect the underlying aspectual class of the eventuality they project from. In English, eventive predicates trigger default perfective readings (Cf. [1]). Eventive preJacents without (3a) would therefore trigger PFV, but the PFV + PRES configuration is ruled out in English. (3a) allows the expression to compose with IMPF.

I note a final virtue of this proposal. Philosophers and deontic logicians have puzzled about specific kinds of deontic modal claims that seem to enjoin agents to perform the actions denoted by the prejaCent (as opposed to indicating that a state of affairs obtaining is deontically ideal). This goes by various names in the philosophy literature; ought-to-do vs. ought-to-be, agentive vs non-agentive oughts, etc. If vP2 introduces its own event argument, it may also get its own agent argument (in much the same manner Copley has claimed that futurates have an unpronounced director argument), allowing for a novel account of such “agentive” root interpretations as (2a).

References