A necessity priority modal and its interaction with tense in Korean
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Previous literature has revealed that the interaction of a modal with tense or aspect forms often gives rise to some unexpected inferences. Two such cases are i) the counterfactual interpretations of epistemic modals for the past in English (Condoravdi 2002) and ii) the actuality entailment observed in the combination of modals with the perfective aspect in Hindi and French (Bhatt 1999; Hacquard 2006). This poster focuses on a similar phenomenon found in Korean (and similarly in English). That is, when a necessity priority modal –*eya ha*– 'must/should' combines with past tense morphology, the sentence yields the 'non-actualization' inference.

Phenomenon Unlike (1a), a priority modal sentence having a past complement, as in (1b), conveys two propositions: i) Chelswu was obliged to do his homework (an obligation inference), and ii) He did not do it (a non-actualization inference). The second inference is somewhat unexpected given the fact that priority modal sentences like *must* p or *should* p (i.e. with non-past complements) are used to express necessities, not to convey either p or ¬p. I address the following questions: (A) The nature of the 'non-actualization' inference in priority modal sentences in Korean: whether it is entailed, presupposed, or implicated, and (B) how this inference is derived.

Analysis I first try to answer (A). Condoravdi argues the counterfactuality of epistemic modal sentences (e.g. *He might have won the game*) as a *conversational implicature*, which is induced by the speaker's choice of a modal for the past. When it comes to the actuality inference found in Hindi and French, since the implicative meaning is not cancelable, Bhatt and Hacquard call the inference the *actuality entailment*. However, these analyses do not fit in Korean. We cannot characterize the non-actualization inference in (1b) as a conversational implicature since this inference cannot be canceled, as shown in (2). This inference cannot be a regular entailment either, since there is an intuition that the obligation inference is foregrounded and the non-actualization inference is backgrounded. This becomes evident if we consider (3). In (3), B can agree or disagree with A about the proposition that 'Chelswu was obliged to do his homework,' not that 'he did not do his homework.' The fact that the direct responses *I agree* or *I don't think so* cannot target the non-actualization inference suggests that the status of this inference is different from the at-issue, foregrounded content (the obligation inference). In this sense, the inference behaves like a presupposition. In fact, the non-actualization interpretation is not affected by negation, as in (4), or by a conditional, as in (5). Yet, this cannot be treated as a presupposition because the inference can provide new information (=not in the common ground), as (6) illustrates. Focusing on its non-cancelable but not-at-issue property, I show that the 'non-actualization' inference can be characterized as a 'backgrounded entailment' (Herburger's (2000) term) (to use Horn's (2002) terminology, it is *assertorically inert*).

Now I turn to (B). Following Condoravdi, I assume that tense morphology is semantically treated as a temporal operator (contra Palmer (1986), Iatridou (2000) and James (1982)), and I propose that the expected interpretations of modal sentences can be derived from the semantics of tense and modality. In discussing temporal interpretations of modal sentences, it has been noted that modality involves two times: (i) the time from which the modal background is accessed, and (ii) the time at which the eventuality/situation described by the complement of the modal holds. In Condoravdi's (2002) terminology, (i) is referred to as the *temporal perspective* and (ii) as the *temporal orientation*. Laca (2008) uses MOD-T and EV-T, and Demirdache and Uribe-Etxebarria (2010) use MOD-T and SIT-T for (i) and (ii), respectively. I adopt Demirdache and Uribe-Etxebarria's terms MOD-T and SIT-T. In addition to these two times, the time of utterance is always given as the present. In Korean, MOD-T is determined by the tense of the modal expression, and SIT-T is set by the embedded tense, which is realized within the main predicate. In order to derive the non-actualization inference in (7b), I argue that lexical meanings of priority modals entail in the backgrounded way that 'the situation described by the main predicate has not been actualized yet by the time of utterance.' If the modal combines with a present complement, the sentence implies that 'the situation has to be done at the time of utterance.' Since UT-T is prior to SIT-T, the situation can be actualized; hence, there is no non-actualization inference in (7a). When the modal is combined with a past complement, as in (7b), however, since SIT-T is prior to UT-T in deontically accessible worlds, the sentence implies that 'the situation cannot be done at the time of utterance,' which yields the non-actualization inference.

(1) a. Chelswu-nun   swukcey-lul   hay-ϕ-eya ha-n-ta.
        Chelswu-TOP homework-ACC do-PRES-MODAL-PRES-DEC

        'Chelswu should do his homework.' (inf: ϕ)

    b. Chelswu-nun   swukcey-lul   hay-ss-eya ha-n-ta.
        Chelswu-TOP homework-ACC do-PAST-MODAL-PRES-DEC

        'Chelswu should have done his homework.'(inf: He didn't do it.)

(2) Chelswu-nun   swukcey-lul   hay-ss-eya ha-n-ta.   #Silceylo hay-ss-ta.
     Chelswu-TOP homework-ACC do-PAST-MODAL-PRES-DEC in fact   do-PAST-DEC

     'Chelswu should have done his homework. #In fact, he did it.'

(3) A: Chelswu-nun   swukcey-lul   hay-ss-eya ha-n-ta.
        Chelswu-TOP homework-ACC do-PAST-MODAL-PRES-DEC

        'Chelswu should have done his homework.'

    B: Na-to kulehkey sayngkakha-y./Na-nun kulehkey sayngkakha-ci anh-a.
        I-too so   think-DEC/I-TOP   so   think-COMP NEG-DEC

        'I agree./I don't think so.' (I agree that he was obliged to do it./#I agree that he didn't do it.)

(4) Chelswu-ka   swukcey-lul   hay-ss-eya ha-nun-kes-un   ani-ta.
     Chelswu-NOM homework-ACC do-PAST-MODAL-PRES-BN-CT NEG-DEC

     'It is not the case that Chelswu should have done his homework.'

(5) Chelswu-ka   swukcey-lul   hay-ss-eya ha-n-ta-myen   talun haksayng-tul-to
     Chelswu-NOM homework-ACC do-PAST-MODAL-PRES-DEC-if other students-PL-too
     hay-ss-eya ha-n-ta.
     do-PAST-MODAL-PRES-DEC

     'If Chelswu should have done his homework, other students should have done it too.'

(6) A: Chelswu-nun   way honna-ko.iss-e?
        Chelswu-TOP why being.scolded-PROG-INT

        'Why is Chelswu being scolded?'

    B: Chelswu-nun   swukcey-lul   hay-ss-eya   ha-ϕ-y.
        Chelswu-TOP homework-ACC do-PAST-COMP AUX-PRES-DEC

        'Chelswu should have done his homework.'

(7) a. Modal world: —[MOD-T]/[UT-T]—–[SIT-T]—- (=(1a))
        Actual world: ——————–¬SIT

    b. Modal world: —[SIT-T]——[MOD-T]/[UT-T]— (=(1b))
        Actual world: ——————————–¬SIT

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