

**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. For example, the combination of modal auxiliaries with the perfect *have* in English often yields the counterfactual interpretations. This poster focuses on a similar phenomenon found in Korean. 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 meaning), and ii) He did not do it (a non-actualization inference). The non-actualization 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  $\neg p$ . 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). 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 meaning 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 meaning). In this sense, the inference seems to behave like a presupposition. In fact, the non-actualization interpretation is not affected by negation, as in (4). Since the inference does not survive under a conditional, as in (5), however, it is difficult to conclude that the non-actualization inference is a presupposition. In addition, 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, 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 (MOD-T), and (ii) the time at which the eventuality/situation described by the complement of the modal holds (SIT-T). In addition to these two times, the time of utterance is always given as the present (UT-T). 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- $\phi$ -eya ha-n-ta.  
Chelswu-TOP homework-ACC do-PRES-MODAL-PRES-DEC  
'Chelswu should do his homework.' (inf:  $\phi$ )
- 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.  
I-too so think-DEC  
'I agree.' (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 pel-ul  
Chelswu-NOM homework-ACC do-PAST-MODAL-PRES-DEC-if punishment-ACC  
pat-ul kes-i-ta.  
receive-MODAL-DEC  
'If Chelswu should have done his homework, he will be punished.'
- (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- $\phi$ -y.  
Chelswu-TOP homework-ACC do-PAST-COMP AUX-PRES-DEC  
'Chelswu should have done his homework.'
- (7) a. Modal worlds: —[MOD-T]/[UT-T]—[SIT-T]— (= (1a))  
Actual world: ————— $\neg$ SIT
- b. Modal worlds: —[SIT-T]—[MOD-T]/[UT-T]— (= (1b))  
Actual world: ————— $\neg$ SIT

## References

- Condoravdi, C.** (2002). Temporal interpretation of modals: Modals for the present and for the past. In Beaver, D., Kaufmann, S., Clark, B., and Casillas, L. (eds), *The Constructions of Meaning*. Stanford, CA: CSLI. pp. 59–88. **Herburger, E.** (2000). What counts focus and quantification. MIT. **Horn, L.** (2002). Assertoric inertia and NPI licensing. *CLS 38, Part 2*, 55–82. **Portner, P.** (2009). *Modality*. Oxford University Press.