Causatives and inchoatives in Korean: A unified account

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Introduction Korean causatives and inchoatives have been analyzed separately or in partial pairings ([4], [5]; cf. [7], [1]), but the systematic semantic and morphological connections between the two have not yet been formally captured. This paper argues that the seemingly disparate Korean causative affix -*i* and inchoative affix -*i* can be given a unified analysis, in which the affix -*i* is provided with a single semantics of set complementation (C) relativized to the domain of all caused and spontaneously occurring events denoted by the vP containing the affixed verb (cf. [2]).

The Korean causative/inchoative alternation In Korean, there are some verbs whose causative versions are *not* marked morphologically, whereas their inchoative counterparts are marked with the morpheme -*i*. There are also other verbs whose inchoative versions are *not* marked morphologically, whereas their causative counterparts are marked with the morpheme -*i*. Each of these will be called: 0-causative, *i*-inchoative, 0-inchoative, and *i*-causative, respectively. Examples are given in (1) and (2), in which both the *i*-causative and the *i*-inchoative share an identical allomorph, -*li*.

An examination of the Korean counterparts of the verbs studied in [3] and [6] shows that the choice between 0-causative and *i*-inchoative vs. *i*-causative and 0-inchoative is not random in Korean. First, all *internally*-caused change of state verbs [6], [8] (i.e., spontaneously occurring; e.g., *eol*- 'freeze' in (2)) seem to be associated with *i*-causatives and 0-inchoatives. Second, most *externally*-caused change of state verbs [6], [8] (i.e., with an external causer; e.g., *yeol*- 'open' in (1)) seem to be associated with 0-causatives and *i*-inchoatives. Finally, the boundary between the two types of affixation patterns seems to align with the cross-linguistic affixation pattern noted in [3], in which the unmarked vs. marked morphology maps onto unmarked (canonical) vs. marked (non-canonical) causal properties of a given stem. Interestingly, in Korean, the marked causative morphology and the marked inchoative morphology seem to manifest as the *same* form, -*i*.

Analysis We propose that the Korean causative/inchoative affix -*i* consistently signals that the event denoted by the verb stem has deviated from its canonical properties. The analysis is inspired by [2]'s account of the number marking affix in Dagaare, and differs fundamentally from previous approaches that directly associate 'causative' or 'inchoative' semantics with -*i* (cf. [4], [5]).

We assume that the 'domain of the base' [2] associated with a given vP is the set of *all* possible events (both externally-caused *and* spontaneously-occurring) it can denote. For instance, the domain associated with the vP 'freeze lake' (2) would be the set of both externally-caused and spontaneously-occurring lake-freezing events. We then posit that the canonical properties of causedness vs. spontaneous-occurrence is lexically specified for different types of verb stems. For instance, stems like 'freeze' (2) denote solely the spontaneously-occurring events, whereas stems like 'open' (1) denote solely the externally-caused events. These properties percolate up to, and determine the denotation of the whole vP. The affix -*i*, occupying the Voice head, can then be straightforwardly analyzed as effecting the set complementation operation (C) relativized to the domain of the base. When it combines with the vP 'freeze lake', C yields the set of all externally-caused lake-freezing events (i.e., semantically marked lake-freezing events) and ends up having a causative meaning. In contrast, when it combines with the vP 'open door', C yields the set of all spontaneously occurring door opening events (i.e., semantically marked door-opening events) and ends up having an inchoative meaning. Detailed derivations that demonstrate this are given in (3).

Conclusion The analysis succeeds in systematically linking the two pairs of Korean causatives and inchoatives. More broadly, it suggests that certain affixes like *-i* contribute abstract meanings that are sensitive to referent-dependent markedness, creating an efficient morphological system.

(1) a. Alice-ga moon-ul yeol-eoss-da. — 0-causative
Alice-nom door-acc open-past-dec.
Alice opened the door.

b. moon-i yeol-***li***-eoss-da. — *i*-inchoative
door-nom open-inch-past-dec.
The door opened.

(2) a. hosu-ga eol-eoss-da. — 0-inchoative
lake-nom freeze-past-dec.
The lake froze.

b. Alice-ga mul-ul eol-***li***-eoss-da. — *i*-causative
Alice-nom water-acc freeze-caus-past-dec.
Alice froze the (glass of) water.

(3) Analysis of Korean causative/inchoative suffix *-i*

Verb stem denotes spontaneously occurring events	Verb stem denotes events with external causers
0-inchoative (bare stem)	*0-causative* (bare stem)
$[\![_{vP}$ freeze lake$]\!]$:= λv(freeze-lake(v) $-$ cause-freeze-lake(v))	$[\![_{vP}$ open door$]\!]$:= λv(cause-open-door(v))
i-causative	*i-inchoative*
$[\![_{vP}$ freeze lake$]\!]$ + *li* = $([\![_{vP}$ freeze lake$]\!])^C$ = $[\lambda$v(freeze-lake(v) $-$ cause-freeze-lake(v))$]^C$ = $[\lambda$v(cause-freeze-lake(v)$]$ = CAUS(freeze lake)	$[\![_{vP}$ open door$]\!]$ + *li* = $([\![_{vP}$ open door$]\!])^C$ = $[\lambda$v(cause-open-door(v))$]^C$ = $[\lambda$v(open-door(v) $-$ cause-open-door(v))$]^C$ = INCHO(open door)

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