Gradable Predicates and Directed Motion Constructions

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January 17, 2011

1 Introduction

- English adjectives are compatible with measure phrases (MPs) as far as they are 'positive' (Kennedy 1999)

(1) a. That fence is 6 feet tall / ?? low.
b. That stick is 6 feet long / ?? short.

- Korean adjectives are not compatible with MPs in general.

(2) a. ??Ku wultali-ka 6 phithu noph-ta / nac-ta.
that fence-Nom 6 feet high-Decl / low-Decl
b. ??Ku maktayki-ka 6 phithu kil-ta / ccalp-ta.
that stick-Nom 6 feet long-Decl / short-Decl

- Korean auxiliary *-eci* freely combines with a gradable adjective, forming an inchoative (roughly translated as *become*-A)

(3) a. Ku maktayki-ka kil-ess-ta.
That stick-Nom long-Past-Decl
'That stick was long.'
b. Ku maktayki-ka kil-eci-ess-ta.
That stick-Nom long-*eci*-Past-Decl
'That stick became long*er*.'

- A measure phrase (MP) may appear with *-eci* inchoatives. In this case, a MP denotes the difference between two states, just like that in comparatives.

(4) a. Ku wultali-ka 6 ft. noph-aci-ess-ta / nac-aci-ess-ta.
that fence-Nom 6 ft. high-eci-Past-Decl / low-eci-Past-Decl
'That fence became 6 feet higher / lower'
b. Ku maktayki-ka 6 ft. kil-eci-ess-ta / ccalp-aci-ess-ta.
that stick-Nom 6 ft. long-eci-Past-Decl / short-eci-Past-Decl
'That stick became 6 feet longer / shorter'

(5) That fence is 6 feet higher than this fence.

- Initial questions

1. Why are MPs only compatible with deadjectival inchoatives derived by *-eci*?
2. Why can MPs only mean the difference between two states in deadjectival inchoatives with *-eci*, just like those in comparatives?

- The aim of the presentation

- To provide a unified account with Korean auxiliary *-eci*
- To investigate the interaction between gradable predicates, path arguments and directed motion constructions
- To draw theoretical as well as cross-linguistic implications between the lexical semantics and constructional meaning

2 Korean deadjectival inchoatives as directed motion constructions

2.1 Gradable path arguments

- Both *-eci* and *ka-/o-* 'go/come' take gradable adjectives as their arguments

(6) a. ku kang-i kiph-eci-ess-ta.
that river-Nom deep-*eci*-Past-Decl
'That river became deeper'
b. ku kang-i kiph-e ka-n-ta.
that river-Nom deep-L go-Pres-Decl
'That river is getting deep'

- Directed motion of the subject along the scale associated with the gradable adjective (Zubizarreta & Oh 2007)

2.2 Modifier *cemcem* 'gradually'

- Both *-eci* and *ka-/o-* 'go/come' are compatible with *cemcem*

(7) a. ku kang-i cemcem kiph-eci-ess-ta.
that river-Nom gradually deep-*eci*-Past-Decl
'That river gradually became deeper'
b. ku kang-i cemcem kiph-e ka-n-ta.
that river-Nom gradually deep-L go-Pres-Decl
'That river is gradually getting deep'

- *cemcem*: modifier of a path argument (Lim & Zubizarreta 2010)

2.3 Other types of path arguments

- Non-gradable verbal predicates and post-positional phrases are compatible with *ka-*, but not with *-eci*

(8) a. Eric-i cwuk-e ka-n-ta.
Eric-Nom die-L go-Pres-Decl
'Eric is dying'
b. *Eric-i cwuk-eci-ess-ta.
Eric-Nom die-*eci*-Past-Decl

(9) a. Eric-i kongwen-ey ka-ess-ta.
Eric-Nom park-Loc go-Past-Decl
'Eric went to the park'
b. *Eric-i kongwen-ey-eci-ess-ta.
Eric-Nom park-Loc-*eci*-Past-Decl

2.4 Measure phrases

- Only *-eci* is compatible with MPs

(10) a. Ku kang-i 1m kiph-eci-ess-ta.
that river-Nom 1m deep-*eci*-Past-Decl
'That river became 1m deeper'
b. *Ku kang-i 1m kiph-e ka-n-ta.
that river-Nom 1m deep-L go-Pres-Decl

- When there is a salient standard of comparison, a gradable adjective without *-eci* is compatible with a MP

(11) I pilting-i (ce pilting-pota) 3m noph-ta.
This building-Nom (that building-than) 3m high-Decl
'This building is 3m higher than that building'

- Plausible assumption: comparative components inside *-eci*

2.5 *-pota* 'than'

- Only *-eci* is compatible with *-pota* 'than'

(12) a. Ku wultali-ka 10 pwun cen-pota noph-aci-ess-ta.
That fence-Nom 10 min. before-than tall-*eci*-Past-Decl
'That fence became higher than 10 minutes ago'
b. *Ku wultali-ka 10 pwun cen-pota noph-a ka-ess-ta/o-ass-ta.
That fence-Nom 10 min. before-than high-L go-Past-Decl/come-Past-Decl

2.6 *-tongan/-maney* 'for/in'

- Unlike *-eci*, *ka-* is only compatible with *for* adverbials

(13) a. Allison-uy khi-ka han tal tongan / *han tal maney khu-e ka-ass-ta.
Allison-Gen height-Nom one month for / one month in tall-L go-Past-Decl
'Allison was getting tall for a month/in a month'
b. Allison-uy khi-ka (?)han tal tongan / han tal maney khu-eci-ess-ta.
Allison-Nom height-Nom one month for / one month in tall-eci-Past-Decl
'Allison became taller for a month/in a month'

2.7 Variable telicity of *-eci*

- *-eci* deadjectival inchoatives show variable telicity, depending on the nature of the scale associated with the adjectival root

(14) Allison-uy khi-ka (?)han tal tongan / han tal maney khu-eci-ess-ta.
Allison-Nom height-Nom one month for / one month in tall-*eci*-Past-Decl
'Allison became taller for a month/in a month'

(15) Suphu-ka (?)10 pwun tongan / 10 pwun maney chakap-aci-ess-ta.
Soup-Nom 10 min. for / 10 min. in cool-textiteci-Past-Decl
'The soup cooled for 10 minutes / in 10 minutes'

(16) Soystengli hana-ka ??han tal tongan / han tal maney phyengphyengha-eci-ess-ta.
chunk-of-metal one-Nom one month for / one month in flat-*eci*-Past-Decl
(lit.) 'A chunk of metal became flat for a month / in a month'

(17) Twu cha sai-uy kankyek-i 10 pwun tongan / *10 pwun maney (kyeysok)
Two car between-Gen Gap-Nom 10 min. for / 10 min. in continuously
nelp-eci-ess-ta.
wide-*eci*-Past-Decl
(lit.) (In a car racing) 'The gap between two cars become (continuously) wider for 10 minutes / in 10 minutes'

- This pattern reminds us of the variable telicity of so-called English degree achievements (Hay et al. 1999, Kennedy & Levin 2008)

2.8 Interim summary

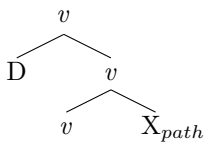
- Similarities between *-eci* and *ka-/o-*
  - Both *-eci* and *ka-/o-* may take gradable adjectival complements
  - Both *-eci* and *ka-/o-* are compatible with *cemcem* 'gradually'
- Differences between *-eci* and *ka-/o-*
  - *ka-/o-* can take physical paths and non-gradable predicates as its complement, while *-eci* cannot
  - *ka-/o-* is NOT compatible with *-pota* 'than' clause, while *-eci* is compatible
  - *ka-/o-* with gradable predicates is atelic , but *-eci* shows variable telicity

3 Theoretical Backgrounds

3.1 L-syntax of directed motion

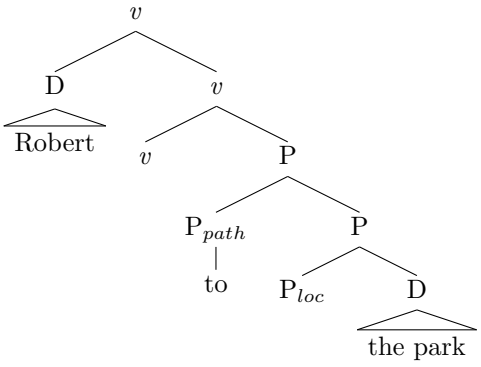
- The meaning of directed motion can be represented as construction (Zubizarreta & Oh 2007)
- The small v takes a path argument, the category of which is not determined.

(18)

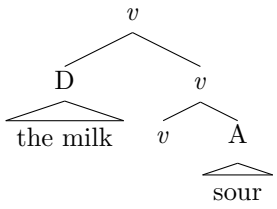


- The vP headed by the small v taking the path argument is considered a spell-out domain (Fox & Pesetsky 2005)
- *Go*, *come*, or *become* do not have any intrinsic lexical meaning - they are different spell-outs of the small v in directed motion constructions, varying depending on the deixis and path arguments
- The directed motion may either be physical or abstract, depending on the type of path arguments

(19) a. Robert went to the park.
b.



(20) a. The milk became sour. (= the milk went sour)

b. 

3.2 Semantics of gradable adjectives and comparatives

- Kennedy's semantics of gradable adjectives
  - Adjectives: functions from individuals to degrees of type <ed> (not <d,et>, as standardly assumed)

    (21) $[\![\textit{old}]\!] = \lambda x_e$.the degree to which x is old (Svenonius & Kennedy 2006:149)

  - To become a predicate (of type <e,t>), adjectives should combine with a functional head, *Deg*

    (22) [$_{DegP}$ Deg AP]

- Degree morphology: *pos* and *meas*
  - *pos*: unmarked case (<ed,et>)

    (23) $[\![[_{Deg}\ \textit{pos}\ ]]\!] = \lambda g_{<e,d>}.\lambda x.$ g(x)> $d_{s(g)(c)}$

    (where g is of type <ed>, and $d_{s(g)(c)}$ represents the 'standard of comparison' for a context of utterance c) (Svenonius & Kennedy 2006:149)
  - *meas*: when a measure phrase appears (<ed,<d,et>>)

    (24) $[\![[_{Deg}\ \textit{meas}\ ]]\!] = \lambda g_{<e,d>}$: g is a function from objects to measurable degrees.$\lambda d'.\lambda x_e$.g(x) $\geq d'$ (Svenonius & Kennedy 2006:150)

- Comparative morphology in Kennedy & McNally (2005)
  - *-er/more* combines with an adjective of type <ed>, and returns another adjective of type <d,ed>

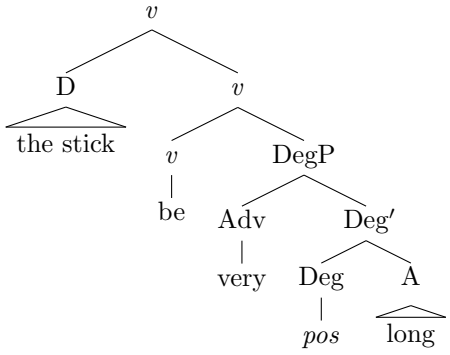
    (25) $[\![\textit{-er/more}]\!] = \lambda g_{<e,d>}.\lambda d'_d.\lambda x_e.$ the degree to which x is g with respect to d'

  - The standard for the degree associated with the adjective is changed to d', introduced by a covert/overt than clause

    (26) $[\![\textit{taller}]\!] = \lambda d'_d.\lambda x_e.$ x's degree of tallness w.r.t. d'

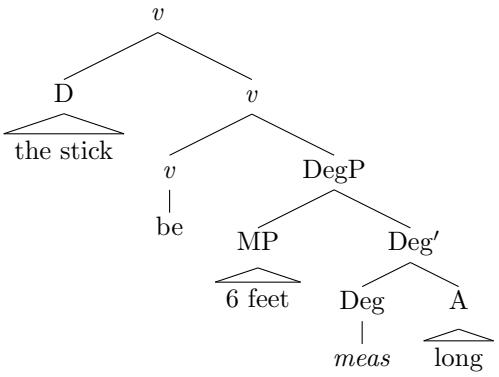
- Some examples

(27) a. The stick is very long.

b. 

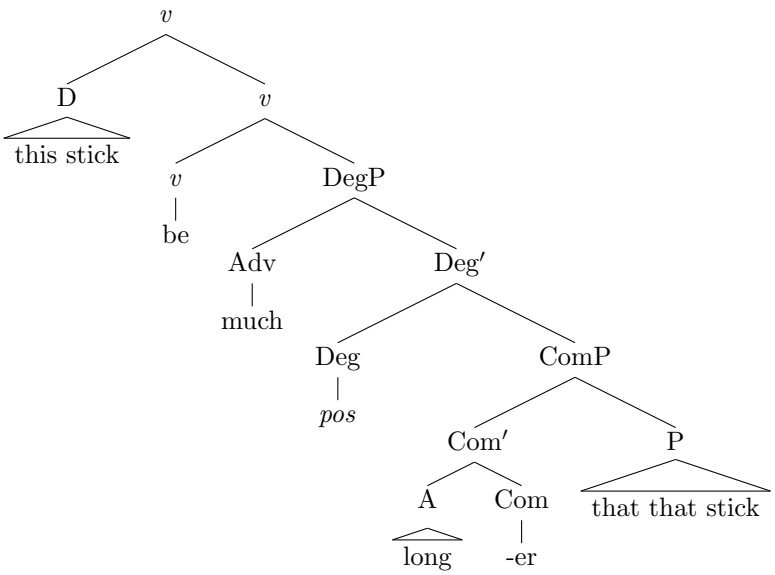
(28) a. The stick is 6 feet long.

b.



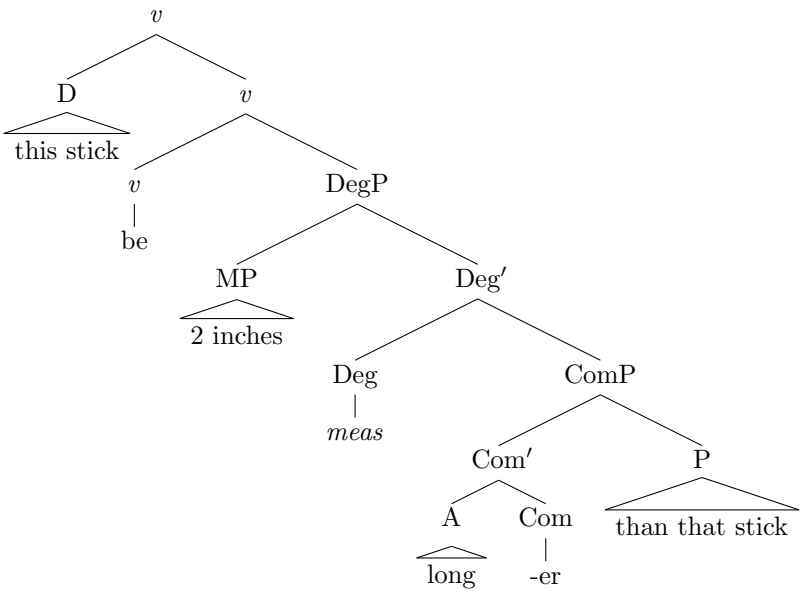
(29) a. This stick is much longer than that stick.

b.



(30) a. This stick is 2 inches longer than that stick.

b.



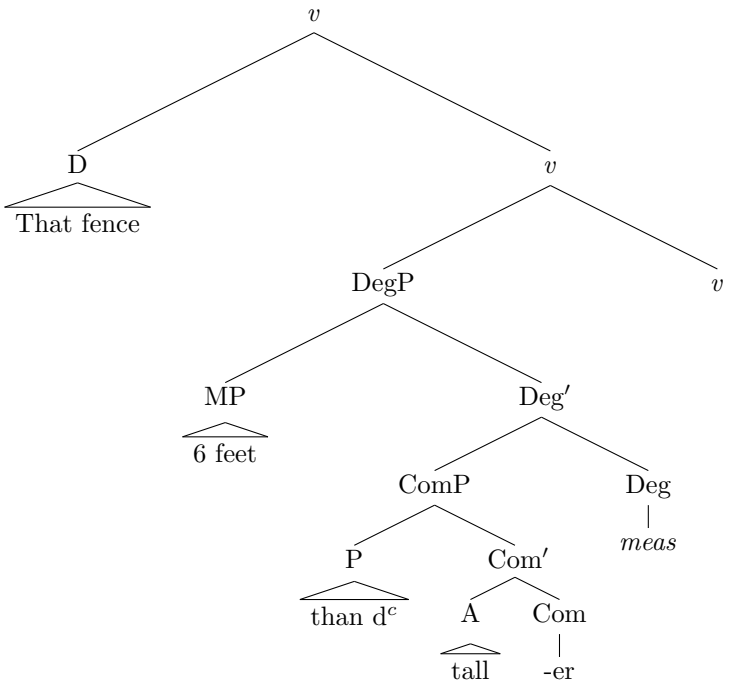
4 Proposal

4.1 Proposal (to be slightly elaborated later)

- Neither *-eci* nor *ka-/o-* has any intrinsic lexical meaning: they are different spell-outs of the small verb v that heads a directed motion construction (as assumed in Zubizarreta & Oh 2007)
- v is spelled-out as *-eci* when the path argument of v contains an abstract path provided by a comparative projection ComP (headed by covert *-er/more*), while it is spelled-out as *ka-* otherwise
- In English *meas* may directly select a gradable predicate as its complement, whereas in Korean *meas* only takes a gradable predicate headed by *-er/more*
- Semantics of v: $[\![v]\!] = \lambda P_{et}.\lambda x_e.$ x becomes P
- *-eci* with a measure phrase

(31) Ku wultali-ka 6 phithu noph-aci-ess-ta.
That fence-Nom 6 feet tall-*eci*-Past-Decl
'That fence became 6 feet taller'

(32)

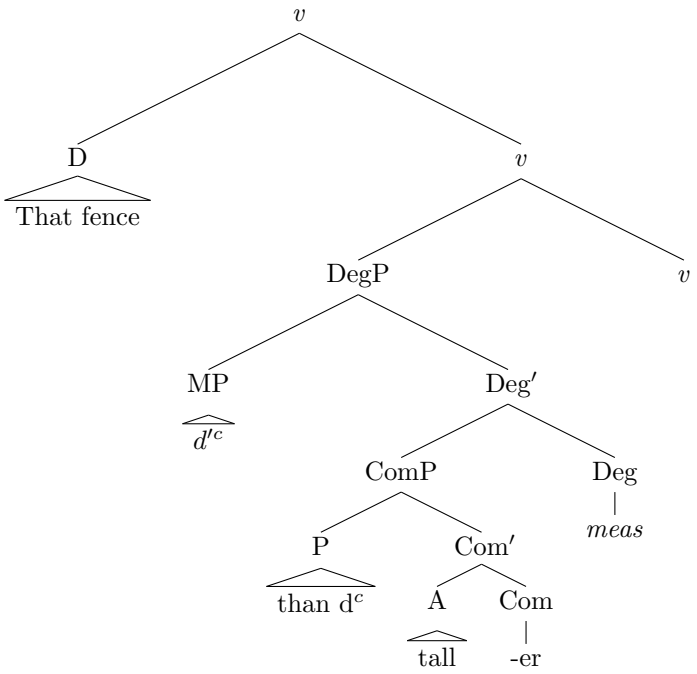


(33) $[\![$ *tall* $]\!]=\lambda x_e.$ the degree to which x was tall
$[\![$ *taller* $]\!]=\lambda d_{1,d}.\lambda x_e.$ the degree to which x was tall w.r.t. d_1
$[\![$ *taller than* d^c $]\!]=\lambda x_e.$ the degree to which x was tall w.r.t. d^c
$[\![$ meas *taller than* d^c $]\!]=\lambda d_d.\lambda x_e.$ the degree to which x was tall w.r.t. d^c was more than or equal to d
$[\![$ *6 feet* meas *taller than* d^c $]\!]=\lambda x_e.$ tallness of x w.r.t. d^c was more than or equal to 6 ft.
$[\![$ *became 6 feet* meas *taller than* d^c $]\!]=\lambda x_e.$ tallness of x w.r.t. d^c became more than or equal to 6 ft.
$[\![$ *that fence became 6 feet* meas *taller than* d^c $]\!]$ is true iff tallness of that fence w.r.t. d^c became more than or equal to 6 ft.

- *-eci* without an overt measure phrase: covert measure phrase d'^c (or existential closure of d'^c) (Roumyana Pancheva p.c.)

(34) Ku wultali-ka noph-aci-ess-ta.
That fence-Nom tall-*eci*-Past-Decl
'That fence became taller'

(35)



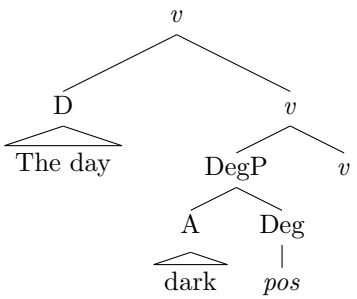
(36) ⟦ *tall* ⟧=λx_e. the degree to which x was tall
⟦ *taller* ⟧=$\lambda d_{1,d}.\lambda x_e$. the degree to which x was tall w.r.t. d_1
⟦ *taller than* d^c ⟧=λx_e. the degree to which x was tall w.r.t. d^c
⟦ meas *taller than* d^c ⟧=$\lambda d_d.\lambda x_e$. the degree to which x was tall w.r.t. d^c was more than or equal to d
⟦ d'^c meas *taller than* d^c ⟧=λx_e. tallness of x w.r.t. d^c was more than or equal to d'^c.
⟦ *became* d'^c meas *taller than* d^c ⟧=λx_e. tallness of x w.r.t. d^c became more than or equal to d'^c.
⟦ *that fence became* d'^c meas *taller than* d^c ⟧ is true iff tallness of that fence w.r.t. d^c became more than or equal to d'^c.

- *ka-* with a gradable adjective: incompatibility of a MP with *pos*

(37) Nal-i etwup-e ka-ess-ta.
Day-Nom dark-L go-Past-Decl
'The day was getting dark'

(38) *John-uy khi-ka 3 cm khu-e ka-n-ta.
John-Gen height-Nom 3 cm tall-L go-Pres-Decl
(intended) (lit.) 'John is getting 3 cm tall'

(39)



(40) $[\![$ *dark* $]\!] = \lambda x_e$. The degree to which x was dark
$[\![$ pos *dark* $]\!] = \lambda x_e$. darkness of x was more than $d_{s(dark)(c)}$
$[\![$ *became* pos *dark* $]\!] = \lambda x_e$. darkness of x became more than $d_{s(dark)(c)}$
$[\![$ *the day became* pos *dark* $]\!]$ is true if darkness of the day became more than $d_{s(dark)(c)}$

- Interim Summary
  - Similarities between *ka-* and *-eci*
    - They share the same structure in L-syntax: the directed motion construction.
  - Differences between *ka-* and *-eci*
    - *-eci*: a path headed by *meas*, taking a gradable predicate argument headed by comparative morphology *-er/more*
    - *ka-*: a path headed by *pos*, without any comparative phrase.
  - The compatibility of MPs with *-eci*
    - The comparative morphology *-er/more* in the path argument and the difference of the selectional restriction of *meas* between Korean and English.

4.2 Explaining variable telicity

- Variable telicity in English degree achievements

(41) Variable telicity
a. The soup cooled in 10 minutes. (Telic)
b. The soup cooled for 10 minutes. (Atelic)

(42) Atelic by default
a. The gap between the boats widened for a few minutes.
b. ??The gap between the boats widened in a few minutes.

(43) Telic by default
The sky darkened (?but it didnt become dark)

- Kennedy & Levin (2008) on degree achievements
  - In the adjectival core of degree achievements:
    - If there is an upper bound as well as a lower bound on the scale associated with the adjectival core, the degree achievement is interpreted as telic.
    - Otherwise, it is interpreted as atelic.
  - The adjectival core of a degree achievement also contains the comparative morphology *more*.
    - The adjectival core in the degree achievement always has the lower bound (that is, d^c introduced by *than* clause).
    - The telicity of a degree achievement varies only depending on whether the scale of the adjectival core has the upper bound or not.

- Variable telicity of *-eci* inchoatives
  - Since we assume that *-eci* inchoatives contain a comparative morphology, the variable telicity of *-eci* inchoatives can also be accounted for in parallel with Kennedy and Levin (2008).
  - Specifically:
    - *phyengphyengha-* 'flat' or *kkoskkosha-* 'straight', etc.:
      - An upper bound: telic by default
    - *nelp-* 'wide', etc.:
      - No upper bound: atelic by default
    - *chakap-* 'cool', etc.:
      - An upper bound is context-dependent: variable telicity

5 Further extensions of the proposal

5.1 Psychological adjectives

- Psych adjectives, which form so-called double-nominative constructions in Korean, can freely combine with *-eci*.

(44) a. Greg-nun saca-ka mwusep-ess-ta.
Greg-Top lion-Nom afraid-Past-Decl
'Greg was afraid of lions'

b. Greg-nun saca-ka mwusep-eci-ess-ta.
Greg-Top lion-Nom afraid-*eci*-Past-Decl
(lit.) 'Greg became afraid of lions'

- Problems in psych adjectives
  1. Judgments vary on psych adjectives with *ka-*.

(45) ?Greg-nun holangi-ka mwusep-e(-man) ka-n-ta.
Greg-Top tiger-Nom afraid-L-(only) go-Pres-Decl
(lit.) 'Greg is getting afraid of tigers'

  2. What kind of MPs can we assume in cases of psych adjectives?

- Psych adjectives are also gradable, however (Jiwon Yun p.c.):
  1. Degree adverbs

(46) John-un saca-ka maywu mwusep-ess-ta.
John-Top lion-Nom very afraid-Past-Decl
'John was very afraid of lions'

  2. Comparatives

(47) John-un saca-ka holangi-pota mwusep-ess-ta.
John-Top lion-Nom tiger-than afraid-Past-Decl
'John was more afraid of lions than tigers'

- Tentatively, we apply the same analysis as gradable adjectives to psych adjectives.

5.2 Transitive predicates and inchoative auxiliary

- *-eci* may also combine with a limited class of transitive verbs, forming an anticausative of the verbal root:

(48) a. Lisa-ka cip han chay-lul cis-ess-ta.
Lisa-Nom house one CL-Acc build-Past-Decl
'Lisa built a house'

b. Cip han chay-ka (Lisa-eyuyhay) cis-eci-ess-ta.
house one CL-Nom Lisa-due to build-*eci*-Past-Decl
'A house was built (by Lisa)'

- Not all transitives allow *-eci*, obviously.

(49) a. James-ka mwulkoki sey mali-lul cap-ess-ta.
James-Nom fish three CL-Acc catch-Past-Decl
'James caught three fish'

b. ??Mwulkoki sey mali-ka (James-eyuyhay) cap-aci-ess-ta.
fish three CL-Nom James-due to/Dat catch-*eci*-Past-Decl

- Verbal *-eci* is not a passive morpheme
  - Purpose clause

(50) a. Cengpwu-nun [cwumintul-ul pohoha]-lyeko kyengchalse-lul
Government-Top residents-Acc protect-Comp police station-Acc
cis-ess-ta.
build-Past-Decl
'The government built a police station to protect residents'
b. ??[cwumintul-ul pohoha]-lyeko kyengchalse-ka cis-eci-ess-ta.
residents-Acc protect-Comp police-station-Nom build-*eci*-Past-Decl

  - Agent-oriented adverbials

(51) a. John-un kikkei/uytocekulo cip han chay-lul cis-ess-ta.
John-Top willingly/deliberately house one CL-Acc build-Past-Decl
'John willingly/deliberately built a house'
b. ??kikkei/uytocekulo cip han chay-ka cis-eci-ess-ta.
willingly/deliberately house one CL-Nom build-*eci*-Past-Decl

  - *-eyuyhay* argument is not agentive

(52) Cikwu-uy CO2 nongto-ka inkan-eyuyhay noph-aci-ess-ta.
Earth-Poss CO2 density-Nom human-due to high-*eci*-Past-Decl
'The density of CO2 in the earth became higher due to human'

- Two questions
  - If *-eci* is not a passive morpheme, what is the nature of *-eci*?
  - What is the common factor verbs compatible with *-eci* share?

- Classes of verbs compatible with *-eci*
  - Verbs of change of state: *twutulki-* 'pound/hammer', *mwungchi-* 'lump together', *kwupwuli-* 'bend', *phye-* 'straighten', *calu-* 'cut', *pwuswu-* 'destroy', *meywu-* 'fill in', *ttulh-* 'drill', *kkunh-* 'cut', *kochi-* 'fix/repair', *kwut-* 'solidify', *kkay-* 'break', *kku-* 'turn off', *ciwu-* 'erase', *hwi-* 'bend', *is-* 'connect', etc.

  - Verbs of creation: *cis-* 'build', *mantul-* 'make', *kwup-* 'bake', *kuli-* 'paint/draw (a painting)', *ssu-* 'write', *sayki-* 'carve', *pic-* 'make porcelains (with clay) / make (event) happen', *kus-* 'draw (lines)', etc.
  - Verbs of (abstract/physical) movement: *cwu-* 'give', *ilwu-* 'achieve/come true', *cenha-* 'report/convey', *wumciki-* 'move', *peli-* 'discard', *twicip-* 'reverse', *ketwu-* 'gather', *mou-* 'gather', *kyepchi-* 'lay over', *ssot-* 'spill', *cecilu-* 'commit', *eph-* 'turn over/turn down', etc.

- Classes of verbs incompatible with *-eci* (cont.)
  - Verbs of consumption: *mek-* 'eat', *masi-* 'drink', etc.
  - Verbs of perception: *tut-* 'hear', *po-* 'see/watch', etc.
  - Other verbs: *ttayli-* 'beat', *cap-* 'catch', etc.

- Semantics of verbs compatible with *-eci*
  - The meaning of change of state can be understood in terms of directed motion along an abstract path
    - cf. *The milk went sour.*
  - The meaning of creation can be understood in terms of change of state (from non-existence to existence)
  - The meaning of movement obviously involves the meaning of direct motion along an (abstract/physical) path

- Therefore, condition on the verbal *-eci*:
  Only verbs which involve the meaning of directed motion are compatible with *-eci*

- Problem
  - Verbs whose meaning is related to directed motion can appear with *-eci*
  - However, verbs cannot appear as a path argument of directed motion constructions by themselves, since they do not lexically encode any notion of path
  - This contrasts with gradable adjectives, which are associated with certain scales, and therefore can appear as path complements of directed motion constructions

- Tentative proposal
  - Let us assume that verbs we saw above take their own path argument
  - When appearing with *-eci*, the verbal root directly merges with the head v of the directed motion construction
  - This verbal complex takes the path argument, which was originally the path argument of the verbal root
  - The detransitivization is a byproduct of the formation of the verbal complex
  - Next question: what kind of path argument do these verbs take?

5.2.1 Verbs of creation and change of state

- Verbs of creation are compatible with resultatives in Korean (Lim & Zubizarreta 2010, Park 2004).

(53) a. John-i cip han chay-lul noph-key cis-ess-ta.
John-Nom house one CL-Acc high-Res build-Past-Decl
(lit.) 'John built a house high'

b. Cip han chay-ka noph-key cis-eci-ess-ta.
House one CL-Nom high-Res build-*eci*-Past-Decl
(lit.) 'A house was built high'

c. "As a result of building, the house became high"

- Verbs of change of state are also compatible with resultatives in Korean (Lim & Zubizarreta 2010, Park 2004).

(54) a. John-i ku soystengeli-lul napcakha-key twutulki-ess-ta.
John-Nom that chunk-of-metal-Acc flat-Res hammer-Past-Decl
(lit.) 'John hammered that chunk of metal flat'
b. ku soystengeli-ka napcakha-key twutulki-eci-ess-ta.
that chunk-of-metal-Nom flat-Res hammer-*eci*-Past-Decl
(lit.) 'That chunk of metal was hammered flat'
c. "As a result of hammering, the metal became flat"

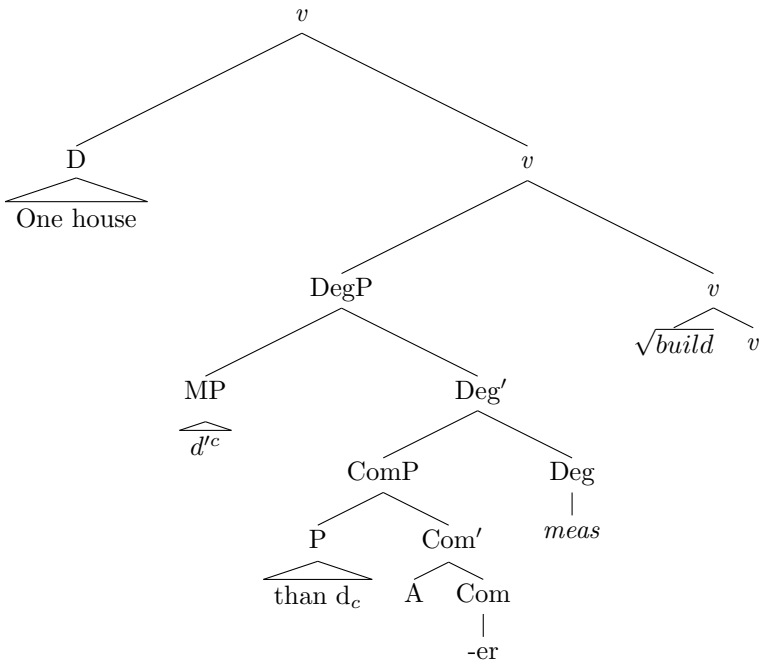
- With other verbs, *key-* adverbials are not interpreted as resultatives.

(55) a. John-i sakwa hana-lul cicepwunha-key mek-ess-ta.
John-Nom apple one-Acc dirty-Adv eat-Past-Decl
'John ate an apple in a dirty manner'
NOT: John ate an apple, and as a result of eating, the apple became dirty.
b. ??Sakwa han kay-ka (John-eyuyhay) mek-eci-ess-ta.
apple one CL-Nom John-by eat-eci-Past-Decl

- Analysis
  - Following Hoekstra (1988), let us assume that these verbs always take an adjectival resultative complement, even when it is not overtly realized.

(56) Cip han chay-ka noph-key cis-eci-ess-ta.
House one CL-Nom high-Res build-*eci*-Past-Decl
(lit.) 'A house was built high'

(57)



5.2.2 Verbs of movement

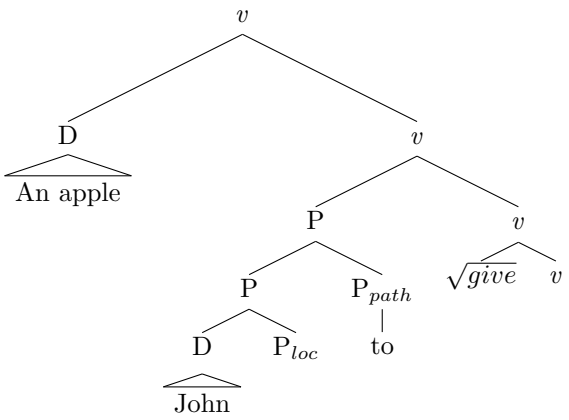
- These verbs do not take any resultatives.

- However, we assume that these verbs take their own path argument, along which a theme argument moves.
- Therefore, in the following example, the dative goal argument is analyzed as a path argument:

(58) Sakwa hana-ka John-eykey cwu-eci-ess-ta.
Apple one-Nom John-Dat give-*eci*-Past-Decl
'An apple was given to John'

- Analysis

(59)



5.2.3 Some elaborations on the previous proposal

- Since verbs of movement do not contain any comparatives, the previous generalization - *v* is spelled-out as *-eci* when the directed motion construction contains a comparative phrase - does not hold anymore
- An alternative can be found in the notion of boundedness/delimitedness (Tenny 1994, among others)
- Definition: a path is bounded/delimited iff its starting point as well as ending point are specified
- Tentative proposal
  - *v* in the directed motion construction is spelled-out as *-eci* when the path argument is (partially) bound/delimited
  - In cases of gradable/psychological adjectives (and possibly the verbs of COS as well), the comparative morpheme delimits the lower bound of a scale (and therefore the starding of the path)
  - In cases of verbs of movement, the goal argument delimits the endpoint of the path

6 Conclusions and remaining issues

6.1 Conclusions

- *-eci* with gradable adjectives, like *ka-/o-*, is the spell-out of the head *v* of the directed motion construction
- Specifically, *v* is spelled-out as *-eci* when the scale is delimited by ComP
- This analysis can account for the various syntactic/semantic characteristics of *-eci*, including its comparative meaning, its compatibility with measure phrases, and its variable telicity

6.2 Further implications on event structure and lexicon-syntax interface

- Simple lexical aspects (Vendler 1967) do not fully account for argument realization
  - Note that verbs compatible with *-eci* include verbs with various lexical aspects: *build* is an accomplishment, but *kkay-* is an achievement
  - More fine-grained semantic-based account is required
- Neither lexical semantics of predicates nor constructional meaning fully determine the other
  - A unified account of verbal *-eci* and adjectival *-eci*, as well as the similarities between differences between *ka-/o-* and *-eci* can be provided in terms of constructions
  - The distribution of verbal *-eci* is accounted for in terms of lexical semantics
  - Cf. Zubizarreta & Oh (2007) for the compatibility of path arguments with a certain type of verbal roots

6.3 Remaining issues

6.3.1 *-eci* vs. Spanish *se*?

- Examples of *se*

(60) a. La tormenta hundió la barca
the storm sink the boat
'The storm sunk the boat'
b. La barca se hundió
the boat *se* sunk
'The boat sunk' (Basilico 2010:2)

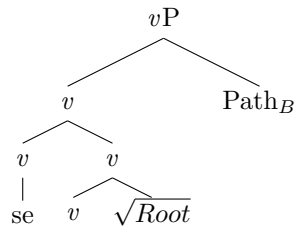
(61) a. Juan leyó un libro
John read a book
'John read a book'
b. Juan se leyó un libro.
Juan *se* read a book
'John read a book (Basilico 2010:2)

(62) *Josefina se abrió una lata
Josephina *se* open a can
'Josephina opened a can' (Basilico 2010:3)

- Basilico (2010) on Spanish *se*
  - Transitives which can appear with *se* without any detransitivization are mostly accomplishments which take incremental themes (Tenny 1994, *inter alia*): a homomorphism between the event and the theme argument
  - This means that the incremental theme argument with accomplishments can be regarded as a path argument along which the event proceeds.
  - Given this, Basilico (2010) claims that, *se* is an underspecified eventive light verb v, which requires a bounded path or scale as its complement.
  - Distributed Morphology (Embick & Noyer 2007, *inter alia*): a verb is created by combining an acategorical head with a little *v*, which provides verbal features to the root.
  - In cases of transitive *se*, *se* forms a verbal complex with a transitive verb, which takes a theme argument as its path
  - In cases of intransitive *se*, *se* takes a verbal root as its path argument

- Basic structure of transitive *se* in Basilico (2010)

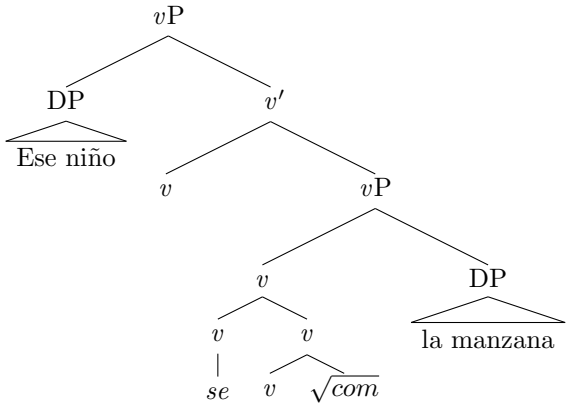
(63)



- Examples of transitive *se* and intransitive *se*

(64) a. Ese niño se comió la manzana.
That child *se* ate the apple
'That child ate the apple'

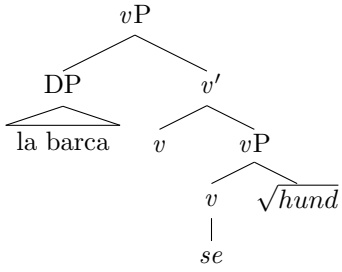
b.



(Basilico 2010:19,20, respectively)

(65) a. La barca se hundió.
The boat *se* sunk
'The boat sank'

b.



(Basilico 2010:36)

- The analysis in Basilico (2010) does not easily extend to Korean *-eci*
  - *-eci* is a strict detransitivizer: except gradable/psych adjectives, it only combines with transitives
  - Not all accomplishments are compatible with *-eci* (e.g., verbs of consumption)
- Some parametric variations may work at this point, but at the moment it is not clear how to specify.

6.3.2 Stacking *v*s?

- Two instantiations of *v*, *-eci* and *ka-*, may appear at the same time

(66) Kang-i (*10m) kiph-eci-e ka-n-ta.
river-Nom (*10m) deep-*eci*-L go-Pres-Decl
'The river is getting deeper'

- MPs are not allowed when *-eci* and *ka-* appear at the same time
- No clear answer at the moment

6.3.3 Passive morphemes vs. *-eci*

- Korean regular passive morpheme: *i/hi/li/ki*
- Verbs compatible with *-eci* are not compatible with passive morphemes
- Verbs incompatible with *-eci* are in general passivized by regular passive morpheme
- Not fully complementary distribution: verbs like *mit-* 'believe', *twicip-* 'overthrow/turn down', *phwul-* 'solve' allow both
- More investigations are required

(67) Cip sey chay-ka *cis-i/hi/li/ki-ess-ta / cis-eci-ess-ta.
house three CL-Nom build-Pass-Past-Decl / build-*eci*-Past-Decl
'Three houses were built'

(68) Yekieyse mwulkoki-ka manhi cap-hi-ess-ta / ??cap-aci-ess-ta
here fish-Nom a lot catch-Pass-Past-Decl / catch-*eci*-Past-Decl
'Fish were caught a lot here'

(69) Pay-ka twicip-hi-ess-ta. / twicip-eci-ess-ta.
ship-Nom overthrow-Pass-Past-Decl / overthrow-*eci*-Past-Decl
'The ship was overthrown'

Acknowledgements

This talk is mostly based on Lim & Zubizarreta (To appear). I thank audiences in the 2nd ECKL (SOAS, August 7-9, 2008), Syntax+ (USC, October 19, 2009), the 2010 Annual Meeting of the LSA (Baltimore, January 7-10, 2010), and 12th SICOGG (Konkuk Univ., August 17-20, 2010) for their suggestions and questions. Thanks also go to Semoon Hoe, Heejeong Ko, Seongyeon Ko, Roumyana Pancheva, Soyoung Park, and Jiwon Yun, for their comments and suggestions on the various stages of the development of this paper. Special thanks go to Maria-Luisa Zubizarreta, with whom I am collaborating on this topic: without her advices and encouragements this work would not exist. All remaining errors are mine, of course.

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