The Complementarity of Intentionality and Affectedness

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TELIC 2017
January 12, 2017
Stuttgart, Germany
1. Introduction: topic & proposal (1/2)

• **Topic**: the relation between **intentionality** and **affectedness** in Korean and English

• **Proposals:**

  (i) I introduce the generalization, *the Complementary of Intentionality and Affectedness* (CIA) (intentionality and affectedness cannot be entailed in a minimal accomplishment predicate at the same time), based on Korean data.

  (ii) I argue then that **English conative alternations** are an instance of the CIA.
1. Introduction: terminology (2/2)

- **Event structural sense** (e.g. Dowty 1979, Rappaport Hovav & Levin 1998)
  
  (i) **Accomplishment**: a caused change-of-state  
      (e.g. *John broke the vase*)
  
  (ii) **Achievement**: a change-of-state that does not necessarily involve causation, (e.g. *The vase broke*)

- **Temporal use** (following Vendler 1957)
  
  (i) **Accomplishment**: a durative change-of-state  
      (e.g. *John built the house*)
  
  (ii) **Achievement**: a punctual change-of-state  
      (e.g. *John broke the vase*)
2. Zero-result: contradictions in English (1/7)

- In English, the inherent result of an accomplishment predicate (i.e. caused change-of-state predicate) must occur in the actual world:

(1) a. He **opened** the door, #but it was not opened.
   b. He **burned** the door, #but it was not burned.
   c. He **broke** the door, #but it was not broken.

- This suggests that the English verbs *open, burn* and *break* entail actual occurrences of inherent results.
2. Zero-result in Korean: basic data (2/7)

• However, in Korean an actual occurrence of an inherent result is not necessary:

(2) *ku-ka mwun-ul himkkes *yel-ess-ciman,*
    he-Nom door-Acc with all the strength open-Pst-but
    door-Nom open-Pass-Comp Neg-Pst-Dec
(lit.) ‘He opened the door with all his strength, but it was not opened.’ = (roughly) ‘He tried to open the door with all his strength, but it was not opened.’

• In (2) the subject did some kind of action to open the door (e.g. pushing the door), but failed.
2. Zero-result in Korean: basic data (3/7)

Such examples are also found naturally occurring:

(3) ...Seyjeong-un Yoo Jaesuk-uy meli-ey pak-ul
    Seyjeong-Top Yoo Jaesuk-Gen head-on gourd-Acc
    
    break-Pst-but  gourd-Top  break-Pass-Comp Neg-Pst-Dec

(lit.) ‘…Seyjeong broke the gourd on Jaesuk Yoo’s head, but
the gourd was not broken.’

(http://m.xtorque.xportsnews.com/?ac=article_view&entry_id=758641)
2. Zero-result in Korean: intention (4/7)

- These zero-result (i.e. failed attempt) interpretations entail **intentionality** on the part of the subject (Lee 2015, Beavers & Lee, under review):

(4) ku-ka mwun-ul **silswulo** yel-ess-ciman, he-Nom door-Acc **accidentally open**-Pst-but
    #mwun-i yel-li-ci **anh-ass-ta**. door-Nom open-Pass-Comp **Neg-Pst-Dec**
    (lit.) ‘He accidentally opened the door, but it was not opened.’

- As in (4), when **silswulo** ‘accidentally’ modifies an accomplishment predicate, the result of the predicate must actually occur.
2. Zero-result in Korean: 

However, *silswulo* ‘accidentally’ can also describe the agent’s misunderstanding as in (5).

(5) [A balloon and a ball are in the room. John intended to kick the ball and not the balloon, but mistook the balloon for the ball and tried to kick the balloon, thinking it was the ball.]

*John*-i *pwungsen-ul* *silswulo* *cha-ss-ciman, pisnaka-ss-ta.*

(lit.) ‘John accidentally kicked the balloon, but missed it.’

This might suggest that non-intentional zero-result readings are possible.
2. Zero-result in Korean: *accidentally* (6/7)

- However, it is crucial in the context that **there be an intention to kick a particular object** that the speaker believes to have certain properties.

(6) [A balloon and a ball are in the room. John has **no desire** to kick either, but out of boredom makes a random kicking motion near what she thinks is **the ball**. It is actually **the balloon**.]

*John-i pwungsen-ul silswulo cha-ss-ciman, #pisnaka-ss-ta.*

John-Nom balloon.Acc **accidentally** kick-Pst-but miss-Pst-Dec

(lit.) ‘John accidentally kicked the balloon, but missed it.’

- The evidence suggests that **intention** is still important for zero-result interpretation.
2. Zero-result in Korean: *accidentally* (7/7)

- If *silswulo* ‘accidentally’ describes the subject’s non-intentionality, zero-result reading is not allowed:

(7) [A balloon and a ball are in the room. John has no desire to kick either, but out of boredom makes a random kicking motion near what she thinks is the ball. It is actually the ball.]

  *John-i kong-ul silswulo cha-ss-ciman, #pisnaka-ss-ta.*

  John-Nom ball-Acc *accidentally* kick-Pst-but miss-Pst-Dec

  (lit.) ‘John accidentally kicked the balloon, but missed it.’

- This again suggests that intention is required for zero-result interpretation.
3. Trying vs. Zero-result (1/3)

- The zero-result interpretations are different from the meaning of try to VP (VP as an accomplishment) (Lee 2015).

(8) [Context: Minho was breaking the door to enter the room in order to turn on the light. But he failed to break the door and thus failed to turn on the light.]

Minho-Nom light-Acc turn.on-to-Comp try-Pst-Dec
kulena pwul-ul khi-l swu eps-ess-ta.
but light-Acc turn.on-Rel way not.exist-Pst-Dec
‘He tried to turn on the light. But he could not turn on the light.’
3. Trying vs. Zero-result (2/3)

(8) [Context: Minho was breaking the door to enter the room in order to turn on the light. But he failed to break the door and thus failed to turn on the light.]

b. #Minho-ka *pwul-ul khi-ess-ciman,*
   Minho-Nom light-Acc *turn.on*-Pst-but
   *pwul-ul khi-l* *swu eps-ess-ta.*
   light-Acc turn.on-Rel way *not.exist*-Pst-Dec
   (lit.) ‘Minho turned on the light, but he could not turn on the light.’ (zero-result reading is intended)

- Zero-result reading requires some fairly direct cause of the result state, but *try to* VP does not.
3. Trying vs. Zero-result (3/3)

- The two sentences in (8) can be plausibly applied to a new context like ‘Minho lifted the switch of the light, but the light was not turned on because there was a problem in the electrical wiring between the switch and the light’, since a direct cause (lifting the switch of the light) occurred in this context.

- In short, zero-result interpretation is more restricted than try to VP meaning in terms of event occurrence.

- Try to VP is also entails intention, but vague on result (see Lee 2015).

- Direct causation is not limited to zero-result — partial result and culmination also require this (see Lee 2015).
4. Actual-result in Korean (1/1)

• The default reading of a Korean caused change-of-state predicate is the reading in which the inherent result of the predicate actually occurs.

• When the result actually occurs, the subject’s intention is not required:

(9) ku-ka mwun-ul ilpwule / silswulo yel-ess-ko,
    he-Nom door-Acc deliberately / accidentally open-Pst-and
    mwun-i wancenhi/ cokum yel-li-ess-ta.
    door-Nom completely / little open-Pass-Past-Dec
‘He deliberately/accidentally opened the door, and it was completely / little opened.’
5. Multiple readings in Korean (1/7)

• Summarizing, a Korean accomplishment predicate can have three different kinds of readings:

1) [intentional +] and [affected -] = zero-result readings

2) [intentional +] and [affected +] = actual-result readings

3) [intentional -] and [affected +] = actual-result readings

• From these readings, I suggest that when intentionality is \textit{entailed}, affectedness is not entailed (i.e. result is vague) and when affectedness is \textit{entailed}, intentionality is not entailed.
Based on this mutual exclusivity of entailments of intentionality and affectedness, I propose the constraint in (10) (Lee 2016).

(10) The Complementarity of Intentionality and Affectedness (CIA):

it is impossible that the subject of a minimal accomplishment predicate (the combination of a verb and its complement(s) which is a causative accomplishment) must have an intention with the inherent result of the predicate and the patient of the predicate must be affected at the same time.
5. Multiple readings in Korean: CIA (3/7)

- The CIA has three logically possible semantic conditions:
  
a. **Intended Result**: The subject of a minimal accomplishment predicate must have an intention with the inherent result of the predicate and it is not that the patient of the predicate must be affected.
  
b. **Actual Result**: The patient of a minimal accomplishment predicate must be affected and it is not that the subject of the predicate must have an intention with the inherent result of the predicate.
  
c. **Unspecified Result**: It is not that the subject of a minimal accomplishment predicate must have an intention with the inherent result of the predicate and it is not that the patient of the predicate must be affected.
5. Multiple readings in Korean: ambiguity (4/7)

- The CIA is more general than the mutual exclusivity of entailments of intentionality and affectedness.

- The mutual exclusivity of entailments of intentionality and affectedness correspond to the two semantic natural classes, **Intended Result** (only intentionality is entailed) and **Actual Result** (only affectedness is entailed).

- The CIA also includes another semantic natural class, **Unspecified Result** (both intentionality and affectedness are not entailed).

- The Korean accomplishment predicates above are ambiguous between **intended-result** and **actual-result** readings.
5. Multiple readings in Korean: ambiguity (5/7)

• This ambiguity can be verified by the identity test (see Lakoff, 1970; Zwicky & Sadow, 1975):

    Jane-Nom book-Acc burn-Pst-and Max-also do.so-Pst-Dec

(i) ‘Jane burned a book and so did Max.’
    (actual result readings of the clauses) or
(ii) (roughly) ‘Jane tried to burn a book and so did Max.’
    (intended result readings of the clauses)

• If taywu- ‘burn’ were vague in its meaning, zero result or partial result or culmination should be freely available for either conjunct.
5. Multiple readings in Korean: ambiguity (6/7)

- But either both conjuncts involve intentionality (regardless of result) or both involve result (regardless of intention).

- What is not possible is a reading where one conjunct describes zero result and the other non-intentional result (partial or complete).

- This suggests that caused change-of-state predicates are ambiguous between two readings: one entailing intentionality but vague on a result (deriving zero result), and one entailing a result but vague on intentionality (Lee 2016, Beavers & Lee, under review)

- That said, in principle both uses admit an intentional partial result or intentional culmination reading.
5. Multiple readings in Korean: hyanghay (7/7)

- The Korean sentence in (12) belongs to Unspecified Result.

(12) *ku-ka ilpwule / silswulo mwun-ul hyanghay*
    he-Nom deliberately / accidentally door-Acc towards
    cha-ss-ta. *haciman pisnaka-ss-ta /*
    kick-Pst-Dec but *miss-Pst-Dec /
    *kulayse mwun-i cha-i-ess-ta.*
    so door-Nom *kick-Pass-Pst-Dec*
    (lit.) ‘He deliberately/accidentally kicked towards the door. But he missed it./So the door was kicked.’
6. Agent Control Hypothesis (1/5)

- Demirdache & Martin (2015) argue for the Agent Control Hypothesis (ACH), which states that “[zero result] construals only require the predicate’s external argument to be associated with ‘agenthood’ properties.”

- Jacobs (2011) argues that agent control (“controlled situations are those in which the agent functions with usual average capacities in keeping things under control” from Thompson & Thompson, 1992: 52, cited in Jacobs, 2011: 9) is required for non-culmination readings in Skwxwú7mesh.
6. Agent Control Hypothesis (2/5)

(13) a. **c-predicate** does not require culmination. *(Skwxwu7mesh)*

\[
\begin{align*}
\text{chen} & \quad \text{kwélash-}t-Ø \quad \text{ta} \quad \text{míxalh}, \\
\text{1S.SUB shoot-TR-3OBJ DET bear} & \quad \text{‘I shot the bear,’} \\
\text{welh} & \quad \text{na} \quad \text{t’emt’ám te-n skwélash} \\
\text{but RL astray DET-1S.POS shot} & \quad \text{‘but I missed (lit. my shot went astray).’}
\end{align*}
\]

b. **lc-predicate** requires culmination. *(Skwxwu7mesh)*

\[
\begin{align*}
\text{chen} & \quad \text{kwélash-nexw-Ø } \text{ta} \text{ míxalh}, \\
\text{1S.SUB shoot-LCTR-3OBJ DET bear} & \quad \text{‘I shot the bear,’} \\
\#\text{welh} & \quad \text{na} \quad \text{t’emt’ám te-n skwélash} \\
\text{but RL astray DET-1S.POS shot} & \quad \text{‘but I missed.’}
\end{align*}
\]
6. Agent Control Hypothesis (3/5)

• In (13) the **c-predicate** (control-predicate) describes the agent’s control and the **lc-predicate** (limited control-predicate) expresses the limited control of the agent, which may be in a **difficult situation** (see Thompson, 1979; Thompson & Thompson, 1992; Bar-el, 2005; Jacobs, 2011).

• Now in order to see if **the agent control** (the degree of control) is also required for Korean zero-result interpretations, we can test whether zero-result interpretations are allowed even when the agent is **intentional** but experiences a **difficulty**.
6. Agent Control Hypothesis (4/5)

- In (14), Wiley intended to burn the book, but he was in a difficult situation (Lee 2015).

(14) [Context: The book was so wet. Wiley was uncertain about whether he could burn the book, but he put it into fire to burn it.]

\[ Wiley-ka \ ku \ chayk-ul \ thaywe-ss-ciman, \]
\[ Wiley-Nom \ that \ book-Acc \ burn-Pst-but \]
\[ cenhye \ tha-ci \ anh-ass-ta. \]
\[ at.all \ burn-Comp \ Neg-Pst-Dec \]
(lit.) ‘Wiley burned the book, but it did not burn at all.’
= (roughly) ‘Wiley tried to burn the book, but it did not burn at all.’
6. Agent Control Hypothesis (5/5)

• The key constraint in Korean is that the agent intends — and in particular believes — that the result can be obtained by the contextually defined action, not that the agent is necessarily sure of success.

• If “control” in ACH more broadly means having “agenthood” properties (as in the definition itself rather than the name of the ACH), Korean does seem to instantiate the ACH.

• Intentionality is strongly correlated with agentivity (e.g. Dowty 1991: 572, (27) lists closely related volitionality in his proto-agent properties) and is required for zero-result in Korean.
I argue that English conative constructions belong to **Intended Result** and the corresponding transitive verb constructions belong to **Actual Result**.

First, the inherent result of the minimal accomplishment predicate of a conative construction does not necessarily occur in the actual world.

(15) a. Emma *kicked* at the ball, but she missed it/and the ball was kicked.
   b. Emma *shot* at the bird, but she missed it/and the bird was shot.
7. Conative constructions: intention (2/4)

- Second, conative constructions in English require intentionality on the part of the subject:

(16) a. #Tom *accidentally* kicked at the ball.
   b. #Tom *accidentally* shot at the bird.

- Here the adverb *accidentally* is assumed to describe non-intentionality of the subject.
7. Conative alternation: direct causation (3/4)

• Third, the direct causing event of a conative construction must occur:

(17) [Jane was opening the door to enter the room in order to kick the ball inside the room. But she failed to open the door and thus failed to kick the ball.]
   a. #Jane kicked at the ball.
   b. Jane tried to kick the ball.

(18) [Jane swung her leg in order to kick the ball. But she missed it.]
   a. Jane kicked at the ball.
   b. Jane tried to kick the ball.
7. Conative constructions: agent control (4/4)

- Fourth, *agent control* (the degree of control) is not required for English conative sentences:

(19) a. [Context: Wiley injured his leg, but he swung it in order to kick the ball.]
   Wiley kicked at the ball (but he missed it).

   b. [Context: Wiley injured his finger, but he pulled the trigger of a gun in order to shoot the bird.]
   Wiley shot at the bird (but he missed it).

- In short, English *at*-conatives belong to Intended Result.
8. Transitive verb construction (1/1)

- The patient of the corresponding English transitive verb construction must be affected:

(20) a. Tom kicked the ball, #but it was not kicked.
    b. Tom shot the bird, #but it was not shot.

- Intentionality of the subject is not necessary for the transitive verb constructions:

(21) a. Tom accidentally / deliberately kicked the ball.
    b. Tom accidentally / deliberately shot the bird.

- Then the English transitive verb constructions belong to Actual Result.
9. Potential counterexamples: *murder* (1/2)

- It seems to be generally assumed that *murder* entails the agentive subject’s intention and the result.

- However, it is not clear whether *murder* really entails intention.

(22) Accidental murder:

“Bob and Alice are fighting; Carol, a friend to both, tries to break it up and gets accidentally shot while Bob and Alice are wrestling for a gun”

(http://tvtropes.org/pmwiki/pmwiki.php/Main/AccidentalMurder)
9. Potential counterexamples: *assassinate* (2/2)

- *Assassinate* also seems not entail intention:

(23) **Accidental assassination:**

    A guard shot to kill the president, but the president was not shot, but the first lady was shot and died.

- If only result is entailed, the accomplishment predicates involving verbs like *murder* or *assassin* should belong to **Actual Result**.
10. Conclusion: summary (1/2)

1) I discussed the various readings (zero-result or actual-result readings) of Korean caused change-of-state predicates.

2) Based on these readings, I argued for the Complementarity of Intentionality and Affectedness (CIA): (i) Intended Result, (ii) Actual Result, and (iii) Unspecified Result.

3) I also argued that English conative constructions belong to Intended Result and their corresponding transitive verb constructions Actual Result.
10. Conclusion: future work (2/2)

• **Typological basis:**

  Non-culmination reading is possible in many other languages. Is the CIA applied to those languages?

• **Formal description:**

  (i) How to formalize the CIA.

  (ii) How exactly the intended result reading is compositionally derived from the combination of the verb and the *at* phrase in a conative construction.
Selected references


• Demirdache, Hamida & Fabienne Martin. 2013. Agent control over nonculminating events. ms, University of Nantes and University of Stuttgart.

