Intentionality, Purpose, and *Tasi* ‘Again’ in Korean

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• **Topic**: A new interpretation of *tasi* ‘again’ in Korean
  \[\rightarrow\text{purpose-repetitive reading}\]

• **Question**: What gives rise to the new interpretation?

• **Proposal**: An intention-based lexical analysis of *tasi* ‘again’
  \[\rightarrow\text{a new lexical entry of } tasi \text{ (i.e. the purposive } tasi)\]
2. English *Again*: Typical readings (1/3)

- Basically *again* has the two types of readings (McCawley, 1968; Dowty, 1979; Stechow, 1995; Beck, 2005; *inter alia*):

  (1) Bill **closed** the window **again**.

    1. **Repetitive reading**: Entails that Bill closed the window, and presupposes that Bill had closed the window before.
    2. **Restitutive reading**: Entails that Bill closed the window, and presupposes that the window had been closed before.

- They differ in the presuppositions.

- When the verb is **telic** as in (1), the repetitive reading seems to entail the restitutive reading.
Another example with atelic verb:

(2) Tom **cooled** the soup **again**.

1. **Repetitive reading**: Entails that Tom cooled the soup, and presupposes that Tom had cooled the soup before.
2. **Restitutive reading**: Entails that Tom cooled the soup, and presupposes that the soup had been cool before.

• **“Successive increase” context** (Pedersen, 2015): Tom continued cooling the soup after he cooled the soup to a degree (repetitive, but not restitutive reading)
2. English Again: Typical readings (3/3)

- “Successive increase" reading is a kind of repetitive reading, but not a restitutive reading.

- So when the verb (e.g. *cool*) is *atelic*, the repetitive reading does *not seem to entail* the restitutive reading.

- When the verb (e.g. *open*) is *telic*, the repetitive reading *seems to entail* the restitutive reading.
3. Korean *Tasi* ‘Again’: Typical readings (1/2)

- The typical repetitive and restitutive readings of *tasi* ‘again’ in Korean (Yoon, 2007; Oh, 2015; Lee, 2017):

(3) *Bill-i ku changmwun-ul tasi tat-ass-ta.*

Bill-Nom the window-Acc again close-Pst-Dec
‘Bill opened the window again.’ (빌이 그 창문을 다시 닫았다)

1. **Repetitive reading**: Entails that Bill closed the window, and presupposes that Bill had closed the window before.
2. **Restitutive reading**: Entails that Bill closed the window, and presupposes that the window had been closed before.
3. Korean *Tasi* ‘Again’: Typical readings (2/2)

- The typical repetitive and restitutive readings in Korean:

(4) *Jane-i kwuk-ul tasi sik-hi-ess-\(\text{\text{-}ta.}*

Jane-Nom soup-band-Acc again cool-Caus-Pst-Dec

‘Jane cooled the soup again.’ (제인이 국을 다시 식혔다.)

1. **Repetitive reading**: Entails that Jane cooled the soup, and presupposes that Jane had cooled the soup before.

2. **Restitutive reading**: Entails that Jane cooled the soup, and presupposes that the soup had been cool before.

- “Successive increase" context (Pedersen, 2015): Jane continued cooling the soup after she cooled the soup to a degree.
4. Korean *Tasi* ‘Again’: A new reading (1/2)

- Korean *tasi* allows what I call ‘**purpose-repetitive reading**’:

  (5) [Bill had never boiled a potato before, and the potato was raw and had not been boiled.]

  \[
  \text{Bill-i mantwu-lul kacyewa-ss-ko,} \\
  \text{Bill-Nom dumpling-Acc bring-Pst-and} \\
  \text{Bill-i tasi kamca-lul salm-ass-ta.}
  \]

  (lit.) 'Bill brought the dumpling, and Bill boiled the potato again.'

  **Purpose-repetitive reading**: Entails that Bill boiled the potato for a certain purpose (e.g., Bill wanted to feed his child), and presupposes that he previously did something (in this context, he brought the dumpling) for the same purpose (i.e., Bill wanted to feed his child).
4. Korean *Tasi* ‘Again’: A new reading (2/2)

- The agent's certain **purpose** is repeated, although the agent could perform different actions for the purpose.

- This kind of reading has never been discussed in the literature to my best knowledge.

- It cannot be accounted for by the **previous approaches** (lexical, structural, or semantic taxonomy-based analysis).

- We need a new theory of the adverb incorporating the notion of **intention**. I propose a new lexical entry of *tasi* (i.e. the purposive *tasi*).
5. Previous Accounts of *Again*: Lexical analysis (1/6)

- The adverb *again* is considered to be ambiguous between the repetitive *again* and the restitutive/counterdirectional *again* (see Beck, 2005: 15).

\[(6)\]

\[a. \ [[\text{again1}])(P_{i,t})(e) = 1 \text{ iff } P(e) \& \exists e'[e' < e \& P(e')] \]
\[= 0 \text{ iff } \sim P(e) \& \exists e'[e' < e \& P(e')] \]
\[\text{undefined otherwise.} \]

\[b. \ [[\text{again2})](P_{i,t})(e) = 1 \text{ iff } P(e) \& \exists e'[e' < e \& P_c(e') \& \]
\[\quad \text{res}_{pc}(e') = \text{pre}_{p}(e)] \]
\[= 0 \text{ iff } \sim P(e) \& \exists e'[e' < e \& P_c(e') \& \]
\[\quad \text{res}_{pc}(e') = \text{pre}_{p}(e)] \]
\[\text{undefined otherwise.} \]
5. Previous Accounts of Again: Lexical analysis (2/6)

• A sentence with the repetitive again in (6a) is true if and only if \( P \) is true of an event, and it is presupposed that there is a prior event of which \( P \) is true.

• A sentence with the restitutive/counterdirectional *again* in (6b) is true if and only if \( P \) is true of an event, and it is presupposed that there is a preceding event of which \( P_c \) (the counterdirectional predicate) of \( P \) is true, and the result state (\( \text{res}_{p_c} \)) of \( P_c \) is the prestate (\( \text{pre}_p \)) of \( P \).

• However, neither the repetitive *again* nor the restitutive *again* says anything about the purpose of an agent.
5. Previous Accounts of *Again*: Structural analysis (3/6)

- In the **structural analysis**, *again* has only one meaning (i.e., repetition).

- The **two different syntactic modifications** of *again* derive the two different readings (Stechow, 1995, 1996, 2003; Klein, 2001; Pittner, 2003; see Dowty, 1979: 261 for the same line of analysis).

- If *again* syntactically modifies the constituent corresponding to the whole event, we get a **typical repetitive reading**.

- But if *again* syntactically modifies the constituent of the result state, we get a **restitutive/counterdirectional reading**.
5. Previous Accounts of *Again*: Structural analysis (4/6)

• But the structural analysis of *again* cannot be extended to other cases like *purpose-repetitive readings*.

• Just like the lexical analysis, the notion of *purpose* or *intention* is not included in the structural analysis.

• Furthermore, it looks *very complicated* to represent the agent's purpose or goal as a constituent in the syntactic structure of a sentence.

• Although a structural analysis of *purpose-repetitive readings* may not be impossible, I choose to revise the lexical analysis to explain them.
5. Previous Accounts of *Again*: Semantic taxonomy-based analysis (5/6)

- Another non-typical repetitive reading, which is referred to as *pseudo-repetitive reading* (Lee, 2017).

(7) [Tom had never fried a sweet potato, and the sweet potato was raw and had not been fried before.]

*Tom-i kokwuma-lul salm-ass-ko,*

Tom-Nom sweet potato-Acc boil-Pst-and

*Tom-i tasi ku kokwuma-lul thwiki-ess-ta.*

Tom-Nom again the sweet potato-Acc fry-Pst-Dec

(lit.) ‘Tom boiled the sweet potato, and then he fried the sweet potato again.’ (톰이 고구마를 삶았고, 톰이 다시 그 고구마를 튀겼다.)

**Pseudo-repetitive reading**: Entails that Tom fried the sweet potato, and presupposes that Tom previously had done a similar action.
5. Previous Accounts of *Again*: Semantic taxonomy-based analysis (6/6)

- The content of the presupposition in (7) is different from that of the entailment, but they are *similar to each other*.

- This reading can be accounted for by the notion of *semantic taxonomies* (Lee, 2017).

- However, the semantic taxonomy-based account has the *same problems* that the lexical or structural analysis bears.
6. Purpose-repetitive reading: Same purpose (1/8)

- If an agent has different purposes, a purpose-repetitive reading is not available in the context:

(8) [Bill brought the dumpling in order to eat it, but he boiled the potato to give it to Jane.]

\[\text{Bill-i mantwu-lul } kacyewa-ss-ko,\]
\[\text{Bill-Nom dumpling-Acc bring-Pst-and}\]
\[\text{Bill-i tasi kamca-lul salm-ass-ta.}\]
\[\text{Bill-Nom again potato-Acc boil-Pst-Dec}\]

(lit.) ‘Bill brought the dumpling, and Bill boiled the potato again.’

(빌이 만두를 가져왔고, 빌이 다시 감자를 삶았다.)
6. Purpose-repetitive reading: Intended action (2/8)

- An agent must have an intention regarding her purpose or goal. Then the agent must also intend her actions that she hopes to lead to her goal

(9) [Bill accidentally brought the dumpling, and just feed his child with it. Bill accidentally boiled the potato, and just feed his child with it.]

*Bill-i mantwu-lul kacyewa-ss-ko,*

Bill-Nom dumpling-Acc bring-Pst-and

*Bill-i tasi kamca-lul salm-ass-ta.*

Bill-Nom again potato-Acc boil-Pst-Dec

(lit.) ‘Bill brought the dumpling, and Bill boiled the potato again.’

(빌이 만두를 가져왔고, 빌이 다시 감자를 삶았다.)
6. Purpose-repetitive reading: Intended action (3/8)

- Although the event of raining and the event of the snow melting lead to the same result, the second clauses in (10a) and (10b) cannot have a purpose-repetitive reading.

(10) [Due to the rain and melted snow, the lake has more water.]
      rain-Nom come-Pst-and snow-Nom again melt-Pst-Dec
      (lit.) ‘It rained, and the snow melted again.’
      (비가 왔고, 눈이 다시 녹았다,)
   b. nwun-i nok-ass-ko, bi-ka tasi wa-ss-ko,
      snow-Nom melt-Pst-Dec rain-Nom again come-Pst-and
      (lit.) ‘It rained, and the snow melted again.’
      (눈이 녹았고, 비가 다시 왔다.)

- It is not necessary for an agent's goal to be actually realized:

(11) [Bill brought the dumpling and boiled the potato to feed his child, but the child did not eat anything.]

*Bill-i mantwu-lul kacyewa-ss-ko,*  
Bill-Nom dumpling-Acc bring-Pst-and  
*Bill-i tasi kamca-lul salm-ass-ta.*  
Bill-Nom again potato-Acc boil-Pst-Dec  
(lit.) 'Bill brought the dumpling, and Bill boiled the potato again.'

*Purpose-repetitive reading:* Entails that Bill boiled the potato for a certain purpose (in this case, Bill wanted to feed his child), and presupposes that Bill previously did something for the same purpose.
6. Purpose-repetitive reading: Agent’s intention (5/8)

- It is an agent who has purpose for purpose-repetitive readings, not the subject:

(12) [Bill wanted to feed his child with the dumpling and the boiled potato.]

\[
Bill-i \quad mantwu-lul \quad kacyewa-ss-ko, \\
Bill-Nom \quad dimpling-Acc \quad bring-Pst-and \\
kamca-ka \quad tasi \quad salm-a \quad ci-ess-ta. \\
potato-Nom \quad again \quad boil-Comp \quad Pass-Pst-Dec
\]

(lit.) ‘Bill brought the dumpling, and the potato was boiled again.’

*Purpose-repetitive reading*: Entails that Bill boiled the potato for a certain purpose (in this context, Bill wanted to feed his child), and presupposes that Bill previously did something for the same purpose (i.e., Bill wanted to feed his child).
6. Purpose-repetitive reading: ‘Lead to’ relation (6/8)

• It is **not necessary** for the purpose of a purpose-repetitive reading to be a **direct result** of the event described by the predicate that *tasi* ‘again’ modifies.

• For instance, as shown in the examples above, feeding a child is not a direct result of bringing the dumping or boiling the potato.

• Rather, bringing the dumpling or boiling the potato can **lead to** feeding a child.
6. Purpose-repetitive reading: Performing action (7/8)

- The agent must **perform actions** with a purpose; having a purpose or intention in her mind is not enough:

(13) [Bill intended to boil the egg since he was hungry, but he did not boil the egg because he was very busy with doing homework. Later, Bill was hungry again, so he fried the potato.]

*Bill*-I *tasi* kamca-lul *thwiki*-ess-ta.

Bill-Nom again potato-Acc fry-Pst-Dec

(lit.) ‘Bill fried the potato again.’ (بيلي 다시 감자를 튀겼다)
6. Purpose-repetitive reading: Summary (8/8)

- All these crucial properties should be reflected in any analysis of purpose-repetitive readings.

- I will propose a new lexical entry of *tasi* 'again' (i.e. the purposive *tasi* ‘gain’) based on the **lexical analysis** and incorporating the **notion of intention**.

- Based on Inman (1993), I assume that an individual *x* **intends** P if and only if P is true in all worlds in *x*’s intention set *I*$_x$, and *x* does **not intend** P if and only if there exists some world in *I*$_x$ at which P is false.
7. An Intention-based Lexical Analysis (1/2)

• The purposive *tasi* ‘again’:

(14) \[ [[tasi_{purpose}]](P_{i,t})(e1) = 1 \]

iff \[ P(e1) \& \Box I_{agent(e1)} \exists e2 \exists R[lead_to(e2)(e1) \& R(e2)] \& \exists e3 \exists Q[e3 < e1 \& Q(e3) \& \Box I_{agent(e1)} \exists e4 \exists S[lead_to(e4)(e3) \& S(e4) \& S = R]] \], where Q is an action.

= 0

iff \[ \sim [P(e1) \& \Box I_{agent(e1)} \exists e2 \exists R[lead_to(e2)(e1) \& R(e2)] \& \exists e3 \exists Q[e3 < e1 \& Q(e3) \& \Box I_{agent(e1)} \exists e4 \exists S[lead_to(e4)(e3) \& S(e4) \& S = R]]] \], where Q is an action.

undefined otherwise.
7. An Intention-based Lexical Analysis (2/2)

(15) a. \( P = \lambda e.\text{boil}_e(\text{the\_potato})(\text{Bill}) \)

b. The purpose-repetitive reading of *Bill-i kamca-lul tasi*\textsubscript{purpose} \(\text{slam-ass-ta} \) ‘Bill boiled the potato again’ (빌이 감자를 다시 삶았다)
\( = \lambda e_1.\text{boil}_{e_1}(\text{the\_potato})(\text{Bill}) \land \square I_{\text{Bill}} \exists e_2 \exists R[\text{lead\_to}(e_2)(e_1) \land R(e_2)] \land \exists e_3 \exists Q[e_3<e_1 \land Q(e_3) \land \square I_{\text{Bill}} \exists e_4 \exists S[\text{lead\_to}(e_4)(e_3) \land S(e_4) \land S = R]], \) where \( Q \) is an action.

• (15b) can be used to describe a situation in which Bill boiled the potato and he intended the boiling event to lead to an event of which \( R \) is true, and Bill previously performed an action and he intended the action to lead to an event of which \( S \) is true and \( S \) is identical to \( R \).
8. Conclusion: Main points (1/2)

- Korean *tasi* ‘again’ has the different meanings: the typical repetitive, pseudo-repetitive, or restitutive/counterdirectional readings.

- It can also have what I call *purpose-repetitive reading*.

- The purposive *tasi* ‘again’ is proposed to account for the purpose-repetitive readings.
8. Conclusion: Future work (2/2)

- The **proliferation** of the lexical entries for *tasi* ‘again’?

- **Pragmatics vs. Semantics**?
  
  → Is *tasi* ‘again’ really **ambiguous** between the readings?

- **Other languages**?
Selected references (1/3)


Selected references (2/3)


Selected references (3/3)