Aspectual Properties of
the Korean Imperfective Constructions*

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Korean employs two types of imperfective constructions: the resultant state
-A ISSTA construction and the progressive -KO ISSTA construction. Consensus has
not yet been reached on the licensing conditions of these two constructions. A
further complication arises from the fact that in limited cases the -KO ISSTA
construction also licenses a resultant state. In this paper, we suggest that these
complexities arise from the subtle properties of eventualities (in particular,
achievements) and further from the tight interactions among the three perspectives
of aspect: lexical, grammatical, and phasal properties of the eventuality in question.

Key words: aspect, eventualities, imperfective, phase, progressive, resultant

1. Introduction

In representing imperfective aspect, Korean employs two periphrastic constructions,
-KO ISSTA and -A ISSTA constructions as exemplified in (1). (See also e.g. Ahn 1995, H.

¹ The -te aru form in Japanese covers both of the Koreanaspectual constructions, though it is
rather controversial what triggers the distinction between the progressive and the resultative
The two sentences here differ only in the connective markers -ko and -a on the verb anc-ta ‘sit’, but we have different aspect readings. The former -KO ISSTA construction in (1a) expresses a progressive state (P-state), describing the action of Mimi’s sitting down on the chair and its being in progress. Meanwhile, the latter -A ISSTA construction in (1b) represents a consequent or resultant state (R-state), describing the state of Mimi’s sitting in the chair and this resultant or consequent state holds at the reference time.

Central concerns of these two constructions involve their licensing conditions and possible interpretations. For the -A ISSTA construction, there have been three main views on the licensing conditions of the construction: transitivity, unaccusativity, and telicity views. The transitivity view assumes that the construction can be applied only to intransitive verbs (Ahn 1995, Yang 2004), while the unaccusativity constraint, referring to the argument structure of the main verb, limits the construction only for unaccusative verbs (E. Lee 2006, 2008). The telicity condition, meanwhile, requires the construction to have an endpoint (K. Lee 1993). However, as we shall see in the paper, each of these three views is not satisfactory enough to cover the full range of the possible data in question (see Chung 2007 and references therein).

Nor is there consensus regarding the licensing and interpretive conditions of the -KO ISSTA construction typically inducing a P-state reading. One intriguing question of the construction arises from examples evoking ambiguous readings. (See K. Lee 1993, Chung 1993, E. Lee 2008, M. Kim 2009, Nam 2010, and J. Kim 2011b.)

With a verb like kki-ta ‘put on’ here, the -KO ISSTA imperfective can give us not only a P-state but also an R-state reading. Such ambiguities do not arise with verbs like anc-ta ‘sit’ in (1a). The question is then why we have two readings in such a limited case and

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2 The glosses we use in the paper include ACC (accusative), CONN (connective), DECL (declarative), IMP (imperative), LOC (locative), NOM (nominative), PASS (passive), PERF (perfective), PST (past), and TOP (topic).
what grammatical factors license this kind of additional reading. In answering these questions, we may resort to the argument structure of the matrix predicate, as suggested by E. Lee (2008). However, this direction cannot give us a full picture of the construction since there is no distinction between unaccusatives and unergatives in the licensing of the -ko iss-ta. An alternative would be, as suggested by M. Kim (2009), to derive the ambiguous readings from the dual entries for the connective marker -ko and the verb iss-ta. However, it is empirically and theoretically questionable if we need to introduce multiple entries for the suffix -ko. As we shall discuss in this paper, the previous approaches have not provided satisfactory answers to cover the flexibility of the data as well as provide a uniform analysis of the two imperfective constructions (cf. K. Lee 1991, Han 1999, Yang 2004, E. Lee 2008, and M. Kim 2009).

In this paper, we propose that what matters in licensing these two imperfective constructions are tight interactions among the three main properties of eventuality: lexical aspect, grammatical aspect, and phrasal structure of the event in question. In doing so, we first review the general properties of aspects in Korean. In particular, we consider eventuality in terms of lexical (situational) as well as grammatical (viewpoint) aspect. In addition to these two, we look into the phasal properties of the eventuality. Based on the interactions among these aspectual properties, we provide licensing conditions for the two imperfective constructions in the language that refer to the three main properties of the aspect involved.

2. Lexical, grammatical, and phasal aspects

Every language has several different ways of talking about a given situation. For example, the situation of Mimi’s running in English can be expressed by Mimi ran, Mimi was running, Mimi has run, Mimi has been running, and so forth. The main difference here, indicated by the verb forms, is an aspectual one involving temporal contours of a situation (see Vendler 1957, Smith 1991, and Rothstein 2004). The aspectual type can be viewed with two different perspectives: lexical (or situational) aspect and grammatical (viewpoint) aspect. Lexical aspect, often called Aktionsart (kind of action), is about the classification of eventualities whereas grammatical aspect involves different ways of viewing the internal temporal constituency of the state of affairs concerned (see, among others, Vendler 1957, Dowty 1979, Bach 1986, Smith 1991, Levin & Rappaport Hovav 1995, Rothstein 2004, and Binnick 2006).

Let us first review some main properties of lexical aspect in Korean while referring to English lexical aspect when called upon. Lexical aspect mainly has to do with the classification of verbal predicates, and as in English we can classify Korean lexical aspect into four different types (see C. Lee 1982, Y. Kim 1990, Ahn 1995, Oh 1998,
As illustrated here, the state verb *aphu-ta* ‘sick’ describes a situation that continues to exist, representing a non-dynamic situation where there is no perceptible change. The remaining three eventuality types, often called ‘events’, express that something undergoes a change. However, these three event types have different internal structures. For example, achievements and accomplishments such as *totalha-ta* ‘reach’ and *mantul-ta* ‘make’, have natural endpoints (telic). Meanwhile, activities such as *talli-ta* ‘run’ are homogeneous with no natural endpoint (atelic). The distinction between accomplishments and achievements is difficult to make, but the main difference comes from the property of duration. Unlike accomplishments, achievements do not mark duration, prevented from being modified by a *for*-PP (cf. C. Lee 1982):

(4) a. Mimi-nun han sikan-maney/*tongan cip-ey tochakha-yess-ta
   Mimi-TOP one hour-in/*for house-at arrive-PST-DECL
   ‘Mimi arrived at home in an hour.’

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3 For the typologically similar language Japanese, see Kudo (1995), Ogihara (1998), and Shirai (2000).

4 In addition to these four types, we could include the so-called semelfactives as an additional eventuality type, similar to English. Adopting Smith (1991), Ahn (1995:77) defines predicates such as *cha-ta* ‘kick’ and *wingkuha-ta* ‘wink’ as semelfactives. As Rothstein (2004: Ch.8, 2008) discusses in detail, however, it is rather questionable if we need to include semelfactives as an independent class of eventualities since they behave like achievements. In this paper, we also follow Rothstein’s (2004) four-way distinction of eventualities.
b. Mimi-nun han sikan-maney/tongan cip-ul ci-ess-ta
   Mimi-TOP one hour-in/for house-ACC build-PST-DECL
   ‘Mimi built the house in an hour/for an hour.’

Building a house is something we can do for a period of time but arriving at a place we cannot. This then explains why the achievement eventuality in (4a) is incompatible with the delimited PP. As such, the four different types of lexical aspect are sensitive to inherent properties such as stativity, durativity, and telicity features (see K. Lee 1993, Ahn 1995, and E. Lee 2008).

One thing worth noting here concerns aspectual coercion or shift. The eventuality type is determined not purely by the lexical property of the verb involved but also by the expressions participating in the predication (e.g. VP level). For example, the internal structure of the object NP (e.g. definiteness) or the property of its dependent (modifier or complement) can shift or coerce the type of eventuality. The verb *talli*-ta ‘run’ can represent either an activity or an accomplishment depending on the type of its dependent as noticed from the following:

(5) a. Mimi-ka talli-ess-ta
    Mimi-NOM run-PST-DECL
    ‘Mimi ran.’

b. Mimi-ka cip-kkaci han sikan-maney talli-ess-ta
   Mimi-NOM home-to one hour-in run-PST-DECL
   ‘Mimi ran to the home in an hour.’

The example (5a) represents an activity situation but in (5b) with the addition of the PP ‘in an hour’, the situation involved is shifted to an accomplishment. The object property also can shift the eventuality type:

(6) a. Mimi-ka pyenci hanthong-ul ilk-ess-ta
    Mimi-NOM letter one-ACC read-PST-DECL
    ‘Mimi read a letter.’

b. Mimi-ka pyenci-tul-ul ilk-ess-ta
   Mimi-NOM letter-PL-ACC read-PST-DECL
   ‘Mimi read letters.’

With the singular indefinite object NP in (6a), we have an accomplishment event, but with the plural object as in (6b), we have an activity event.5

Unlike this four-way classification of lexical aspect, grammatical (or viewpoint) aspect has two subtypes, perfective and imperfective aspect, the latter of which again includes habitual aspect and continuous aspect (see Parsons 1989, Landman 1992, and Binnick 2006 and references therein):

(7) grammatical (viewpoint) aspect
    perfective aspect imperfective aspect
        habitual aspect continuous aspect

The perfective aspect represents eventuality as a single point while the imperfective does not. As in English, in Korean the default interpretation of the simple tense represents perfective aspect. Habitual aspect, (e.g., marked by such as -kon ha-ta ‘used to’) denotes periodic repetition of an eventuality, while continuous aspect represents ongoing eventuality. Continuous aspect can be marked either by the progressive form or the perfect form in the language:

(8) a. Mimi-ka o-ko iss-ta
    Mimi-NOM come-CONN exist-DECL
    ‘Mimi is coming.’

b. Mimi-ka o-ass-ess-ta
    Mimi-NOM come-PREF-PST-DECL
    ‘Mimi has come.’

Examples like (8a) describe a progressive aspect representing a durative, unbounded, and dynamical eventuality whereas those like (8b) give us perfect aspect. The continuative perfect represents an eventuality that started in the past and continuously holds up to the present point.

As we have seen, lexical aspect classifies situations, referring to their internal temporal structures while grammatical aspect marks different ways of viewing the temporal structures of eventualities. In addition, as suggested by Moens & Steedman (1988), Kamp & Reyle (1993), and Binnick (2006), eventualities can be viewed from their phasal properties. The various types of eventualities differ in what phases they

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As a reviewer points out, the phasal aspect of eventuality can be part of the situation or lexical aspect or even can be represented in terms of Smith’s (1991) temporal structures of eventualities as Ahn (1995) did for Korean. However, as suggested by Moens & Steedman (1988), Binnick (2006), and Vet (2011), among others, we can analyze eventualities from the ternary viewpoints
contain. Following Moens & Steedman (1988), and Kamp & Reyle (1993), we can consider events as having a triple set: preparatory phase, culmination point, and resultant (consequent) phase, as represented in the following:

(9) Phasal structure of a telic, durative eventuality

\[
\begin{array}{ccc}
\text{preparatory phase} & \text{culmination point} & \text{resultant phase} \\
\hline
\end{array}
\]

Eventually differ in their phasal properties in which an event is interpreted in terms of the temporal interpretation of discourse structure. States such as existing consist of a single, uniform phase with no beginning and no ending. That is why states are not classified as events. Activity verbs like tali-ta ‘run’ or swuyengha-ta ‘swim’ then describe just preparatory processes which may include a culmination point by another dependent expression. Achievements such as tatalu-ta ‘reach (the summit)’ or cwuk-ta ‘die’ describe an instantaneous change in a situation, marking the moment of change from one state of affairs to another. The event denoted by accomplishment verbs like cis-ta ‘build’ involves complex processes: a preparatory phase where the building activity is carried out and a culmination point representing the completion of the action.

Advantages of referring to the phasal aspect in particular can immediately come from the possibility of differentiating achievements. Consider the following data:

(10) a. Mimi-ka cengo-ey cengsang-ey totalha-yess-ta
    Mimi NOM noon-at top-at reach-PST-DECL
    ‘Mimi reached the top at noon.’

b. Mimi-ka ttalkkucilha-yess-ta
    Mimi NOM hiccup-PST-DECL
    ‘Mimi hiccupped.’

Sentence (10a) describes a culmination point, an event which the speaker takes as punctual and as accompanied by a transition to a new state of the world (being at the top) called the ‘consequent state’. Meanwhile, (10b) just expresses a ‘point’ event whose consequence is not at issue at all in discourse and thus does not have a consequent state. This difference distinguishes the possibility of occurring in the imperfective -A ISSTA construction:

\[
\begin{array}{ccc}
\text{lexical (situation), grammatical (viewpoint), and phasal aspect. This way allows us to refer to the phasal properties in a more visual way.}
\end{array}
\]
(11) a. Mimi-ka cengsang-ey totalha-ye iss-ta  
   Mimi-NOM top-at reach-CONN exist-DECL  
   ‘Mimi has reached the top.’  

b. *Mimi-ka ttalkukcilha-ye iss-ta  
   Mimi-NOM hiccup-CONN exist-DECL  
   ‘(intended) Mimi hiccupped and exists in that state.’

The (11b) is unacceptable since the state of hiccupping cannot be attained at the resultant 
phase stage but (11a) is legitimate since the state of reaching the top can be held at the 
consequent stage, too.

As such, the phasal properties (preparatory processes, culminating point, and 
resulting phase) play an important role in licensing the imperfective constructions in the 
language. In what follows, we shall see that the phasal properties determine the licensing 
conditions of the -A ISSTA as well as the -KO ISSTA construction with appropriate readings.

3. Imperfective -A ISSTA construction and resultant state

3.1 Transitivity, telicity, and unaccusativity conditions

Licensing the -A ISSTA construction seems to be sensitive to two main properties: 
intransitivity and telicity (see K. Lee 1993, Yang 2004, and Chung 2007). Consider the 
intransitivity condition first:7

(12) a. Mimi-ka uyca-ey anc-a iss-ta  
   Mimi-NOM chair-at sit-CONN exist-DECL  
   ‘Mimi is in the state of having sat on the chair.’

b. *Mimi-ka uyca-lul mantul-e iss-ta  
   Mimi-NOM chair-ACC make-CONN exist-DECL  
   ‘(int.) Mimi is in the state of having made a chair.’

The contrast between the transitive and intransitive verb here may lead us to resort to 
the ‘intransitivity’ condition in licensing the -A ISSTA imperfective construction. Note, 
however, that there are examples where this intransitivity condition is violated:

7 The English translation sentences like (12a), representing a resultant state, may sound ‘literal’ 
and we may instead take it to be synonymous to a present perfect like ‘Mimi has sat on the 
chair’. However, note that this would not describe the fact that the event involved here implies 
itself continuation after reaching the culmination point.
(13) a. ku tosi-nun Seoul-ul cepha-ye iss-ta
    the city-TOP Seoul-ACC border-CONN exist-DECL
    ‘The city is in the state of having bordered Seoul.’

b. Mimi-nun Seoul-ul ttena-a iss-ta
    Mimi-TOP Seoul-ACC leave-CONN exist-DECL
    ‘Mimi is in the state of having left Seoul.’

These examples include an accusative marked object.\(^8\)

As Yang (2004) suggests, these examples may not be true transitive since the object can have a non-accusative case (e.g., locative) as seen from the following (see Yang 2004: ex.(6)):

(14) a. ku tosi-nun Seoul-ey cepha-ye iss-ta
    the city-TOP Seoul-at border-CONN exist-DECL
    ‘The city is in the state of having bordered Seoul.’

b. (?)Mimi-nun Seoul-lopwuthe/eyes ttena-a iss-ta
    Mimi-TOP Seoul-from/at leave-CONN exist-DECL
    ‘Mimi is in the state of having left Seoul.’

However, further issues arise from examples that assign only accusative to the object. Observe the examples in (15).\(^9\)

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\(^8\) Ahn (1995:123-124) also suggests that -KO ISSTA is used in highly ‘transitive situations’ (with two or more participants) whereas the -A ISSTA construction is used in intransitive situations (with one participant). However, note that there are many situations where an intransitive situation licenses the -KO ISSTA construction as illustrated in the following:

(i) elum-i nok-ko iss-ta
    ice-NOM melt-CONN exist-DECL
    ‘The ice is in process of melting.’

It is hard to claim that there are two participants in the event of the ice’s melting. This implies that we need to refer to more than the transitivity condition in licensing the two imperfective constructions.

\(^9\) The object in (15a) may be marked with the commitative case *wa*. However, it seems that the case value is allowed only with the absence of the copular verb *iss-ta*:

(i) Mimi-nun emma-wa/lul ppay talm-ass-ta
    Mimi-TOP mom-with/ACC very resemble-PST-DECL
    ‘Mimi resembled her mom a lot.’

Though the reason for the case assignment differences is unknown to us at this point, it seems to us that the verb *talm-ta* is a true transitive verb selecting an object.
(15) a. Mimi-nun emma-lul/*ey/*lopwuthe ppay talm-a iss-ta
    Mimi-TOP mom-ACC/*at/*from very resemble-CONN exist-DECL
    ‘Mimi is in the state of having resembled mom a lot.’

b. Mimi-nun san-ul/*ey/*lopwuthe/*wa nemeka-a iss-ta
    Mimi-TOP mountain-ACC/*at/*from/*with cross.over-CONN exist-DECL
    ‘Mimi is in the state of having crossed over the mountain.’

These examples indicate that the simple transitivity condition is not enough to predict
the type of possible predicates in the construction.

Observing the issues arising from the intransitivity condition, we may resort to the
telicity condition as accepted by Han (1999), Yang (2004), and others. Consider the
contrast between (16) and (17):

(16) a. nayngcangko-ka pi-e iss-ta
    refrigerator-NOM empty-CONN exist-DECL
    ‘The refrigerator is in the state of having been empty.’

b. kkoch-i phi-e iss-ta
    flower-NOM bloom-CONN exist-DECL
    ‘Flowers are in the state of having bloomed.’

(17) a. *Mimi-ka wus-e iss-ta
    Mimi-NOM smile-CONN exist-DECL
    ‘(int.) Mimi is in the state of having smiled.’

b. Mimi-ka ttwi-e iss-ta
    Mimi-NOM run-CONN exist-DECL
    ‘(int.) Mimi is in the state of having run.’

The difference here is that verbal predicates like pi-ta ‘be empty’ or phi-ta ‘bloom’ in
(16) denote a telic event, while those like wus-ta ‘laugh’ or ttwi-ta ‘run’ in (17) do not.
It also appears that the -A ISSTA occurs only with an intransitive verb.

When considering more data, however, we can observe that the telicity or
boundedness of the event in question is not enough. As given in the following, even
though both achievement and accomplishment verbs represent a telic event denoting an
endpoint, only achievement verbs are natural with the -A ISSTA construction:

(18) a. *Mimi-ka talli-e iss-ta (activity)
    Mimi-NOM run-CONN exist-DECL
    ‘(int.) Mimi is in the state of having run.’
b. *pang-i etwup-e iss-ta (state)
   room-NOM dark-CONN exist-DECL
   ‘(int.) The room is in the state of having been dark.’

c. *haksayng-tul-i cip-ul cis-e iss-ta (accomplishment)
   student-PL-NOM house-ACC build-CONN exist-DECL
   ‘(int.) The students are in the state of having built a house.’

d. namwu-ka cwuek-e iss-ta (achievement)
   tree-NOM die-CONN exist-DECL
   ‘The tree is in the state of being dead.’

Seeing that not all telic situations license the -A ISSTA construction, we need to refer to something other than the telicity of an event. One possibility, as suggested by E. Lee (2008), is to resort to the unaccusativity property of the argument structure. That is, we may claim that the -A ISSTA construction selects only unaccusative and passive verbs with an internal theme argument. This reliance on the argument structure seems to account for most of the examples including the ones in (18). The subject in (18d) is not an agent but a theme element. However, note that this ‘unaccusativity’ hypothesis again runs into problems with data like the following:

(19) a. Mimi-ka honca ilese-e iss-ta
   Mimi-NOM alone stand.up-CONN exist-DECL
   ‘Mimi is in the state of having stood up alone.’

   b. Mimi-ka cip-ul ttena-a iss-ta
   Mimi-NOM home-ACC leave exist-DECL
   ‘Mimi is in the state of having left home.’

E. Lee (2008) assumes that the locomotion or posture verbs here are not ‘agentive’ verbs but unaccusative verbs whose subject is a theme. The verbs here, however, are clearly action verbs since they have agent subjects, as witnessed from the possibility of occurring in imperatives (see Y. Kim 1990):

(20) a. motwu ilese-la!
   all stand.up-IMP
   ‘Everybody, stand up!’

   b. motwu ppali ttena-la!
   all quickly leave-IMP
   ‘Everybody, leave quickly!’
These verbs can also appear with a purposive adverb like *ilpwule* ‘intentionally’ which clearly requires a subject performing the action in question:

\[(21)\]  
\begin{align*}  
a. & \quad \text{Mimi-ka ilpwule anc-ci anh-ko ilese-ess-ta}  
& \begin{array}{l}  
\text{Mimi-NOM intentionally sit-CONN not-CONN stand.up-PST-DECL}  
\end{array}  
& \begin{array}{l}  
\text{‘Mimi intentionally stood up, instead of sitting down.’}  
\end{array} \\
\text{b. Mimi-ka ilpwule ppali ttena-ass-ta}  
& \begin{array}{l}  
\text{Mimi-NOM intentionally quickly leave-PST-DECL}  
\end{array}  
& \begin{array}{l}  
\text{‘Mimi intentionally left quickly.’}  
\end{array} 
\end{align*}

One can, of course, assign a different status to the subject of such locomotion verbs (as in fact done by E. Lee 2008). However, issues further arise from the fact that not all unaccusative verbs can appear in this construction. Consider the following examples:

\[(22)\]  
\begin{align*}  
a. & \quad \text{*hanul-i noph-a iss-ta}  
& \begin{array}{l}  
\text{sky-NOM high-CONN exist-DECL}  
\end{array}  
& \begin{array}{l}  
\text{‘(int.) The sky is in the state of having been high.’}  
\end{array} \\
\text{b. *nalssi-ka chwup-e iss-ta}  
& \begin{array}{l}  
\text{weather-NOM cold-CONN exist-DECL}  
\end{array}  
& \begin{array}{l}  
\text{‘(int.) The weather is in the state of having been cold.’}  
\end{array} \\
\text{c. *pang-i etwup-e iss-ta}  
& \begin{array}{l}  
\text{room-NOM dark-CONN exist-DECL}  
\end{array}  
& \begin{array}{l}  
\text{‘(int.) The room is in the state of having been dark.’}  
\end{array} 
\end{align*}

These predicates cannot appear in imperatives or cannot be used in the progressive form either. Given that the predicates in (21) and (22) all select an internal argument as its subject, there is no reason for them not to occur in the -A ISSTA construction within the unaccusativity condition.

To this condition, one may add the telicity condition, which we have discussed earlier. For example, adjectives are intrinsically atelic and thus not allowed in the -A ISSTA construction, as a reviewer suggested. However, as we have seen earlier in (18), telic accomplishment verbs usually do not occur in the -A ISSTA construction. Another option would be, as suggested by E. Lee (2008), to exclude such stative expressions from the discussion simply because they are just ‘adjectives’ and not ‘verbs’ with the claim that the eventuality is concerned only with verbs. It is true that adjectives and verbs in Korean are different in a few respects (e.g. possibility to occur with the present
tense marking -nun), but the two behave alike in many respects. For example, they both host a tense marking and serve as predicates. Adjectives and verbs are alike in many respects except the stativity property (see Sohn 2001). It is clear that both adjectival and verbal predicates are sensitive to eventuality as well as aspectual properties in Korean, calling for a uniform treatment for given grammatical phenomena. Also consider the following passive and cognitive verbs:

(23) a. *tap-i po-i-e iss-ta
    answer-NOM see-PASS-CONN exist-DECL
    ‘(int.) The answer is in the state of having been seen.’

b. *palcakwuk soli-ka tul-li-e iss-ta
    foot.step sound-NOM hear-PASS-CONN exist-DECL
    ‘(int.) The noise of the footstep is in the state of having been heard.’

The passive verbs po-i-ta ‘seen’ and tul-li-ta ‘heard’ select an internal subject as its subject, but cannot occur in the -A ISSTA construction. These data once again tell us that argument structure alone cannot decide the licensing condition of the -A ISSTA construction.

3.2 Three different types of achievement and licensing conditions

In the previous section, we have seen that the typical eventuality in the -A ISSTA construction denotes an achievement. For example, the accomplishment or activity verbs with a goal point cannot appear in the -A ISSTA construction:

    Mimi-TOP Seoul-to walk-CONN exist-DECL
    ‘(int.) Mimi is in the state of having walked to Seoul.’

b. *Mimi-nun Seoul-kkaci ttwi-e iss-ta
    Mimi-TOP Seoul-to run-CONN exist-DECL
    ‘Mimi is in the state of having run to Seoul.’

The action of walking or running toward Seoul can be processed at the preparatory stage. That is, the action goes through preparatory processes, not reaching a culminated point, and afterward attains the situation at the consequent (resultant) state. This explains

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10 The present suffix -nun occurs only with a nonstative predicate as seen from the contrast between *alumtap-nun-ta ‘pretty-PRES-DECL’ and ilk-nun-ta ‘read-PRES-DECL’. See Sohn (2001: 203-212) and references therein.
why they cannot be in the -A ISSTA construction.

However, this does not mean that all achievement verbs can appear in the -A ISSTA construction. Observe the following contrast with achievement verbs:

(25) a. cengsang-ey ollu-a iss-ta
top-at climb-CONN exist-DECL
‘(We) are in the state of having climbed up the top.’
b. thap-i nophi sos-a iss-ta
tower-NOM high arise-CONN exist-DECL
‘The tower is in the state of having risen high.’

(26) a. *saylowun sasil-ul palkyenha-ye iss-ta
new fact-ACC discover-CONN exist-DECL
‘(int.) #We are in the state of having discovered new facts.’
b. *Mimi-ka kapcaki kichimha-ye iss-ta
Mimi-NOM suddenly cough-CONN exist-DECL
‘(int.) #Mimi is in the state of having coughed suddenly.’

As seen in the contrast here, achievement verbs like ollu- ‘climb up’ can naturally occur in the -A ISSTA construction. However, the verb palkyenha- ‘discover’ or kichimha- ‘cough’ cannot occur in the -A ISSTA construction. We attribute the difference to the properties of the resultative phase in question. That is, the state of arising and climbing up can be sustained after the culmination point while the state of discovering something or coughing suddenly is terminated at the culmination point, and cannot thus be sustained at the consequent state. This difference is clear when referring to the phasal properties:11

(27) a. Phasal structure of ‘in the state of reaching the summit and being at the top’
climbing the mountain being at the top


↑

reaching the summit

b. Phasal structure of ‘discovering something’


discovered something

11 As noticed from the contrast, we represent the slashes as processes with the arrow line being a continuous state.
As observed from these phasal structures, the main difference lies in the point that discovering something is a one-time event which cannot hold at the post-event phase. However, (25a) involves three stages: the processes of climbing the mountain, reaching the summit, and being at the top. Such an achievement eventuality, incorporating processes, is called ‘abstract achievement’ by Rothstein (2004) and licenses the -A ISSTA construction, while the punctual achievement verbs do not.12

Note that, in addition to these two different types of achievement, there is another type of achievement involving cognition or perceptive verbs (see Ahn 1995, Oh 2005, and E. Lee 2006, 2008).13

(28) a. *Mimi-nun tap-ul al-a iss-ta
   Mimi-TOP answer-ACC know-CONN exist-DECL
   ‘Mimi knows the answer.’

b. *Mimi-nun san-ul po-a iss-ta
   Mimi-TOP mountain-ACC see-CONN exist-DECL
   ‘(int.) Mimi is in the state of having seen the mountain.’

Different from English, Korean cognition verbs like know are not stative as seen from its possibility with occurring with the nonstative present form -nun:

(29) a. Mimi-nun tap-ul al-n-ta
    Mimi-TOP answer-ACC know-PRES-DECL
    ‘Mimi knows the answer.’

b. *Mimi-nun chakha-n-ta
    Mimi-TOP honest-PRES-DECL
    ‘Mimi is honest.’

The nonstative properties can be also observed from the accusative case assignment to the object here (statives assign nominative to its object).

12 The punctual achievements defined here are ‘single-stage telic events’. In this sense, they are different from Ahn’s (1995:77) definition of semelfactives as “single-stage (i.e. instantaneous) atelic events.”

13 Ahn (1995:78-95) provides a detailed discussion of the ‘know’-class verbs in Korean, suggesting that these types of verbs induce achievement eventualities. Meanwhile, E. Lee (2006) suggests that know-type verbs in Korean are event descriptions, or more specifically, inchoative eventualities, which indicate the inception of a continuous state. This paper adopts both of the observations as seen from the phasal structure in (32).
Cognition verbs in Korean can naturally occur with the progressive form (see Y. Kim 1990, Ahn 1995, E. Lee 2006):

(30) a. Mimi-nun tap-ul al-ko iss-ta
    Mimi-TOP answer-ACC know-CONN exist-DECL
    ‘Mimi is in the state of having known the answer.’

b. Mimi-nun kyohwun-ul ic-ko iss-ta
    Mimi-TOP lesson-ACC forget-CONN exist-DECL
    ‘Mimi is in the state of having forgotten the lesson.’

These cognition predicates, whose meaning is similar to English ‘recognize’, are achievements since they involve a transition to the result state, e.g. from not knowing to knowing a given fact. But unlike typical punctual achievements, the eventualities with these verbs may describe a durative event, as evidenced from the following (see Ahn 1995, E. Lee 2006):

(31) a. ku tap-ul hantongan al-ass-ciman, cikumun molu-n-ta
    the answer-ACC for.a.while know-PST-but now not.know-PRES-DECL
    ‘(lit.) He has known the answer for a while, but does not know it now.’

b. ku tap-ul al-nuntey han sikan keli-ess-ta
    the answer-ACC know-to one hour took-PST-DECL
    ‘(lit.) It took an hour to know the answer.’

As such, the ‘know’ class verbs seem to be able to represent a durative action (or can be in the progressive form), similar to activities and accomplishments (see H. Lee 1991). However, note that, as also pointed out by Ahn (1995) and E. Lee (2006), this does not mean that these verbs are in nature durative like accomplishments, which are sensitive to preparatory processes. Meanwhile, the seemingly ‘durative’ property of these verbs is only relevant at the resultant state. That is, the ‘know’ class verbs in Korean in nature represents an instantaneous telic event but further describes the inception of this event in question that continues a resultant or consequent state. We thus can represent the phasal structure of (30a) as in (32):

(32) Phasal structure of ‘in the state of knowing the answer’
    being knowledgeable of the answer
    ▲\\\________________________________________
    __________________________________________
    know the answer


1050
As represented here, the cognition verbs in the language involves two stages: a culmination point and the durative resultant state. This resultant reading is what we obtain from the -KO ISSTA. This durative property at the resultant or consequent state excludes the cognition and psychological verbs from the -A ISSTA construction.

We now have three different types of achievements:\textsuperscript{14}

\begin{enumerate}
\item \textbf{‘abstract’ achievements}: tochakha-ta ‘arrive’, ollu-ta ‘climb-up’, kenne-ta ‘cross-over’, ...
\item \textbf{‘punctual’ achievements}: palkyenha-ta ‘discover’, ‘phokphaha-ta ‘blow.up’, ...
\item \textbf{‘resultant’ achievements}: al-ta ‘know/recognize’, ihayha-ta ‘understand’, ic-ta ‘forget’, ...
\end{enumerate}

Of these three, as we have discussed so far, only abstract achievements are natural with the -A ISSTA construction. The ‘abstract’ achievements involve preparatory processes, reaching a culmination point and sustaining its eventual status at the post-event phase. ‘Punctual’ achievements do not involve processes: they typically denote instantaneous changes. Meanwhile, ‘resultant’ achievements include a culmination point after which the eventual property can be sustained at the consequent or resultant state. In §4, we shall also see how these three types behave differently with respect to the -KO ISSTA construction. Together with this three-way classification of achievement eventualities, I suggest that the licensing conditions for the -A ISSTA construction can now be stated as following:

\textsuperscript{14} Ahn (1995) distinguishes telic eventualities (achievements and accomplishments) into ‘eventive’ and ‘resultative’. The eventive eventualities, roughly corresponding to the ‘abstract’ achievement, focus on the preliminary stages of the eventuality while the resultative telic eventualities, corresponding to ‘resultant’, describe the post-event stages after the endpoint. This distinction is similar to E. Lee’s (2006) classification of achievements into ‘progressive’ and ‘inchoative’ achievements. The main difference between the present one and the previous ones (Ahn 1995, E. Lee 2006) is thus to have a three-way classification of achievement eventualities. One obvious difference from Ahn’s analysis is that semelfactives like kichimhaha-ta ‘cough’. In Ahn’s analysis, this type of predicate is defined as an ‘atelic’ semelfactive, and thus has no bearing with her two telic eventualities, eventives or resultatives. In the present analysis, this type of eventuality is a punctual achievement that can occur with the -KO ISSTA to induce a progressive or a resultant state reading. A detailed comparison between the present analysis and the previous ones is left for future research.
The -A ISSTA construction is licensed iff
(i) The event involved represents an ‘abstract’ achievement eventuality, and
(ii) after reaching the culmination point, its internal property must be attained
at the resultative phase.

In what follows, we shall discuss the predictions that these licensing conditions make
for the construction.

3.3 More on the phasal properties

The licensing conditions in (34) refer to three main aspectual properties: lexical,
grammatical, and phasal properties. The conditions can give us several welcoming
consequences. For example, consider the contrast in (35) with the predicate *iki-ta ‘win’:

(35) a. *hankwuk-i cenpancen-ey iki-e iss-ess-ta
Korea-NOM first.half-at win-CONN exist-PST-DECL
‘(int.) #The Korea team is in the state of having won the game.’
b. hankwuk-i cenpancen-ey iki-ko iss-ess-ta
Korea-NOM first.half-at win-CONN exist-PST-DECL
‘The Korea team was winning in the first half.’

The examples do not express that the action of winning the game is completed or
terminated. The winning event is a ‘punctual event’, not involving any processes. This
is why the predicate *iki-ta cannot be in the -A ISSTA construction. To represent the
processes or activities involved to win a game at the culmination point, it needs to occur
with the -KO ISSTA construction as seen from (35b).

As noted in the previous section, the difference between achievement and
accomplishment verbs is durative. The durative property of an eventuality can be
checked with tongan ‘for’, similar to English for-PP:

(36) a. *namwu-ka halwu-tongan cwuk-ess-ta
tree-NOM one.day-for die-PST-DECL
‘*The tree died for a day.’
b. ku say-nun halwu-tongan wen-ul kuli-ass-ta
the bird-TOP one.day-for circle-ACC draw-PST-DECL
‘The bird has making a circle for a day.’
The contrast here implies that the verb *kuli-ta* ‘draw’ represents an accomplishment while the achievement verb *cwuk-ta* ‘die’ denotes a nondurative eventuality which reaches a culmination point. This contrast between achievement and accomplishment can be also checked with the predicate ‘stop’: only achievements cannot be complements of ‘stop’ (Kearns 2000:204-210). Observe the Korean examples in (37).15

\[(37) \begin{align*}
\text{a.} & \quad *\text{namwu-ka cwuk-nun kes-ul memchwu-ess-ta} \\
& \quad \text{tree-NOM die-MOD KES-ACC stop-PST-DECL} \\
& \quad *\text{The tree stopped dying.}
\\
\text{b.} & \quad \text{ku say-ka wen-ul kuli-nun kes-ul memchwu-ess-ta} \\
& \quad \text{the bird-NOM circle-ACC draw-MOD KES-ACC stop-PST-DECL} \\
& \quad \text{‘The bird stopped making a circle.’}
\end{align*}\]

As seen here, the durative accomplishment can be the complement of ‘stop’ while the non-durative achievement cannot. This contrast carries over to the -A ISSTA construction:

\[(38) \begin{align*}
\text{a.} & \quad \text{namwu-ka (naynay) cwuk-e iss-ta} \\
& \quad \text{tree-NOM continuously die-CONN exist-DECL} \\
& \quad \text{‘The tree is (continuously) in the state of having been dead.’}
\\
\text{b.} & \quad *\text{ku say-nun (naynay) wen-ul kuli-e iss-ta} \\
& \quad \text{the bird-TOP continuously circle-ACC draw-CONN exist-DECL} \\
& \quad \text{‘(int.) The bird has (continuously) made a circle.’}
\end{align*}\]

(38a) expresses a state of affairs where the tree reached the culmination point of dying and this state of affairs is attained at the consequent stage or resultant phase. (38b) is weird since the durative state of affairs after reaching the culmination point may not be sustained. The function of the -A ISSTA construction is thus to ensure the endpointed eventuality to last at the consequent state.

The importance of referring to the phasal properties in licensing the -A ISSTA construction can be seen from the following contrast:16

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15 The multifunctional expression *kes*, which is not glossed here, is used as a kind of nominalizer, though its exact status is rather controversial. In most cases -nun *kes-ul* can be replaced by the form *ki-lul*.

16 To some speakers, examples like (i) seem to be better than the one in (39b):

\[(i) \quad \text{Mimi-nun wa-a iss-ta} \\
\quad \text{Mimi-TOP come-CONN exist-DECL} \\
\quad \text{‘Mimi came and stays in that state.’}\]
The difference is the presence of the goal argument *cip-ey*. In the -A ISSTA construction (39a), the event of going to the house thus reaches a culmination point and this situation is attained at the consequent or resultant level. With no goal PP in (39b), the event may undergo preparatory processes, but not a terminal point. This means we are not sure of whether the event is sustained at the consequent stage.

We assume predicates like *sal-ta* ‘live’ and *nam-ta* ‘remain’ belong to the abstract achievement:

(40) a. ku yeongwung-un cwuk-ess-ciman, censel-un sal-a iss-ta
    the hero-TOP die-PST-though legend-TOP live-CONN exist-DECL
    ‘Even though the hero died, the legend is still alive.’

b. umakhoy-nun kkuthna-ss-ciman, yewun-un nam-a iss-ta
    concert-TOP finish-PST-though aftereffect-TOP remain-CONN exist-DECL
    ‘Even though the concert was over, the music is still lingering on in my mind.’

The legend and the aftereffect, after passing through certain preparatory processes, enter the inception stage (reaching the culmination point) immediately when the hero dies or the concert is over. The events indicate the inception of a continuous state and this state is attained at the consequent stage, the resultant phase. This is why such examples are possible in the -A ISSTA construction.

As we have seen, the -A ISSTA construction denotes a consequent state which either is the result of a change or can be viewed as if there could be a change away from that state, after reaching the culmination point. Consider the following problematic case:

(41) ku tosi-nun Seoul-ul/-ey cepha-ye iss-ta
    the city-TOP Seoul-ACC/at border-CONN exist-DECL
    ‘The city is in the state of having bordered Seoul.’

The main difference is that the verb *come* accompanies the implicit goal *here* more clearly. That is, the action of going does not give us the goal clearly if the context does not provide it for us, while the action of coming obviously tells us its goal, here.
At first glance, the eventuality involved here seems not to be telic. The subject *ku tosi* ‘the city’ has not moved. However, we can interpret this metaphorically or in cognitive terms: the two cities came to a point where the two border each other and that this state is kept on at the consequent stage.

As noted by Chung (2007:792), following Wechsler’s (2005) three-way classifications of English adjectives, Korean adjectival predicates can be classified into three types:

(42) a. open-scale gradable predicates: *kil-ta* ‘long’, *cha-ta* ‘cool’, *etwup-ta* ‘dark’, ...
   b. closed-scale gradable predicates: *pi-ta* ‘empty’, *katuk.cha-ta* ‘full’, *malu-ta* ‘dry’, ...
   c. binary non-gradable predicates: *kkay-ta* ‘awake’, *olh-ta* ‘right’, *thulli-ta* ‘wrong’, ...

Of these three types, Chung (2007) suggests that closed-scale and binary predicates are bounded and thus are expected to occur in the -A ISSTA construction:

(43) a. *kang-i kil-e iss-ta*
   river-NOM long-CONN exist-DECL
   ‘(int.) The river is in the state of having been long.’
   b. mwulthong-i pi-e iss-ta
   water.bottle-NOM empty-CONN exist-DECL
   ‘The water bottle is in the state of having been empty.’
   c. Mimi-ka kkay-e iss-ta
   Mimi-NOM awake-CONN exist-DECL
   ‘(int.) Mimi is in the state of having been awake.’

The open scale-predicate *kil-ta* ‘long’ cannot reach a culmination point unlike the closed-scale predicate *pi-ta* ‘empty’ or the binary predicate *awake*. However, we have seen that the boundedness (or telicity) condition is not enough since not all achievement or accomplishment situations can occur with the -A ISSTA as we have seen earlier (see the discussion around (18)). In addition, binary predicates like *olh-ta* ‘right’, which can be taken bounded, do not license the -A ISSTA construction:

(44) *Mimi-ka olh-a iss-ta*
    Mimi-NOM right-CONN exist-DECL
    ‘(int.) Mimi is in the state of being right.’
In the present analysis, such a predicate cannot occur in the -A ISSTA construction simply because it does not represent an abstract achievement involving processes.

As noted earlier, state eventuality does not participate in the construction. But with the help of the inchoative verb *ci-ta* ‘become’, the event in question can be turned into one denoting a terminal point and thus transformed into an achievement. Consider the examples with open-scale adjectives like *etwup-ta* ‘dark’ or *yeppu-ta* ‘pretty’:

\[(45)\]
\[
a. \text{pang-i etwup-e ci-e iss-ta} \\
   \text{room-NOM dark-CONN become-CONN exist-DECL} \\
   \text{‘The room is in the state of having been dark.’} \\
b. \text{Mimi-ka yoceum yeppu-e ci-e iss-ta} \\
   \text{Mimi-NOM nowadays pretty-CONN become-CONN exist-DECL} \\
   \text{‘Mimi is in the state of having been pretty nowadays.’} \\
\]

The inchoative verb *ci-ta* indicates the inception of a continuous state and being in the -A ISSTA construction allows us to interpret that this state is attained at the consequent state. This is why both of these examples are possible.

### 4. Imperfective -KO ISSTA construction

#### 4.1 Representing a progressive state

Similar to English, the progressive aspect in Korean can appear with an activity or accomplishment, but not with a state eventuality:

\[(46)\]
\[
a. *\text{Mimi-nun phikonha-ko iss-ta} \quad \text{(state)} \\
   \text{Mimi-TOP tired-CONN exist-DECL} \\
   \text{‘(int.) Mimi is in process of becoming tired.’} \\
\]

As a reviewer points out, examples like (45b) may not be natural to some speakers without proper context. However, a naturally occurring example like the following is surely fine when the *ci-ta* induces an inchoative reading:

\[(i)\]
\[
\text{helsu khullep-ul tanimey daiethu-lul hayse mwuchek nalssinhay ci-ko} \\
\text{health club-ACC attend diet-ACC do very skinny become-CONN} \\
\text{yeppu-e ci-e iss-ta} \\
\text{pretty-CONN become-CONN exist-DECL} \\
\text{‘Going to a health club and doing a diet, (she) is now in the state of having been really skinny and pretty.’} \\
\]

The example clearly illustrates the fact that the subject has undergone certain processes, reached the culmination point of being pretty, and keeps the state at the consequent stage.

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\[(i)\]
\[
\text{helsu khullep-ul tanimey daiethu-lul hayse mwuchek nalssinhay ci-ko} \\
\text{health club-ACC attend diet-ACC do very skinny become-CONN} \\
\text{yeppu-e ci-e iss-ta} \\
\text{pretty-CONN become-CONN exist-DECL} \\
\text{‘Going to a health club and doing a diet, (she) is now in the state of having been really skinny and pretty.’} \\
\]
b. Mimi-ka ttwi-ko iss-ta (activity)
Mimi-NOM run-CONN exist-DECL
‘Mimi is running.’

c. Mimi-ka tali-lul kenne-ko iss-ta (accomplishment)
Mimi-NOM bridge-ACC cross-CONN exist-DECL
‘Mimi is crossing the bridge.’

How about achievement verbs? Since the semantics of the progressive aspect involves a possibly incomplete event, achievements do not occur with the progressive aspect since they involve an instantaneous change from the proposition α to ¬α. This seems to be true in both English and Korean as observed from the following (see E. Lee 2006 and references therein for Korean):

(47) a. *John is finding her house for some time.
   b. *John is arriving at Seoul.
   c. *John is discovering the machine.
   d. *John is inventing a machine.

(48) a. *Mimi-ka daiamondu-lul palkyenha-ko iss-ta
Mimi-NOM diamond-ACC discover-CONN exist-DECL
‘*Mimi is discovering diamonds.’
   b. */??Mimi-ka sinkiswu-ul palmyengha-ko iss-ta
Mimi-NOM new.technique-ACC invent-CONN exist-DECL
   ‘*Mimi is inventing new techniques.’

The unnaturalness of such examples has to do with the fact that an achievement is describing just an instantaneous event, not an incomplete, continuous process. However, note that achievements can be in the progressive form when they have an iterative interpretation with contextual support (see Vendler 1957, de Swart 1998, Rothstein 2004, E. Lee 2006 for discussion):

(49) a. Mary is reaching the top.
   b. He is finding his key.
   c. He was noticing/spotting a squirrel.

As pointed out by Smith (1991), the achievements here focus on the preliminary stages. For example to reach the top in (49a), we have a preliminary stage of climbing up the mountain. In (49b), we can repeat the action of searching for the key. As we have hinted
in §3, this kind of process-incorporating ‘abstract’ achievement or ‘punctual’ achievement can occur with the progressive form.

(50) a. whupo-tul-i yek-ey chalyelo tochakha-ko iss-ta
candidates-NOM station-at in.turn arrive-CONN exist-DECL
‘The candidates are arriving at the station in turn.’
b. tongsayng-i kyokwase-lul chac-ko iss-ess-ta
brother-NOM textbook-ACC search-CONN exist-PST-DECL
‘Brother was searching the textbook.’

These examples do not express a situation where the action of reaching the station or searching the textbook is completed or terminated: the action in each case can involve processes, preparatory or culminated. The achievement eventuality (e.g., tochakha-ta ‘arrive’) basically represents a telic, non-durative, instantaneous event. However, when it focuses on preliminary processes before reaching the culmination point, it can be durative as seen from the possibility of being paraphrased as mak X-halyeko ‘be about to’ or being used in the form of ‘it takes X hour -ing’:

(51) a. kicha-ka yek-ey mak tochakha-lyeko ha-n-ta
train-NOM station-at about arrive-CONN do-PRES-DECL
‘The train is just about to arrive at the station.’
b. kicha-ka yek-ey tochakha-nuntey han sikan keli-ess-ta
train-NOM station-at arrive-to one hour take-PST-DECL
‘It took one hour for the train to arrive at the station.’

This is why the process-involved abstract achievement can occur in the -KO ISSTA construction, representing a progressive state.

Unlike such cases where the relevant action is iterated or repeated to reach the culmination point, the ‘punctual’ achievement represents a nondurative, instantaneous event. The punctual achievement verbs are unnatural to occur in the progressive form with no proper context. Contextual environments can, however, shift a nondurative punctual achievement into a durative achievement, making it possible to describe a progressive aspect. A simple Google search yields a considerable number of instances where such achievement verbs are used in the -KO ISSTA construction, as exemplified in the following examples:

---

18 We use preparatory processes as involving the culmination point.
19 Google search of the continuous strings palmeynghako issta and palkyenhako issta as of
(52) a. wuli nala-ka hanul-ul nan-un catongcha-lul palmyengha-ko we country-NOM sky-ACC fly-MOD car-ACC invent-CONN iss-ta exist-DECL
‘Our country is inventing a car flying in the sky.’
b. cim-ul cengliha-myense onkac kes-ul palkyenha-ko package-ACC clean-while all thing-ACC discover-CONN iss-ta exist-DECL
‘While cleaning up the stuff, I am discovering all kinds of stuff.’

These are possible since the action of inventing or discovering something can be repeated or preparatory (or culminated) processes. These examples all involve action in progress.

What we have observed here is that as long as the eventuality in question denotes a nonstative, processing-involved event we can have the -KO ISSTA construction, describing processes or action in progress. We then can state the licensing condition for the progressive -KO ISSTA construction as in (53):

(53) Licensing Conditions for the Progressive Aspect
The -KO ISSTA construction selects a nonstative, durative event, describing preparatory or culmination processes.

All the eventualities, except for state eventualities, can express incomplete action in progress at a specific time, which undergoes a process at the preparatory or culmination stage. As for the accomplishment (e.g. cis-ta ‘build’), there will be preparatory processes which can in the most natural way reach the culmination point. As for the activities (e.g. talli-ta ‘run’), the event can reach either a culmination point or can include a preparatory process.20

December 15, 2012, yields about 1,340,000 and 105,000,000 results, respectively. As an anonymous reviewer correctly points out, these predicates do not occur in the -A ISSTA. One simple reason for this is that the eventuality here, taking no more than a moment with no continuous action, cannot be sustained in the post-event, resultative phase. This does not satisfy the licensing conditions of the -A ISSTA construction (34).

20 The previous literature also adopts similar licensing conditions to the ones given in (53), but there are also differences to be noted. For example, Ahn (1995) and Oh (1998, 2005) assume that the -KO ISSTA construction occurs with all kinds of events, representing a general imperfective viewpoint. Within Oh (1998), this imperfective viewpoint is further classified into three different types: progressive, resultative, and preliminary stage-focusing. E. Lee (2006) takes the -KO ISSTA construction as denoting a middle phase of a situation, encompassing both
At this point it is worth noting an intriguing contrast arising from the two synonymous words *phokpalha-ko* ‘explode’ and *phokphaha-ko* ‘blow up’, as a reviewer noted:

(54) a. haksayng-tul-uy pwunno-ka phokpalha-ko iss-ta
    students-PL-GEN anger-NOM explode-CONN exist-DECL
    ‘Students’ anger were exploding.’

b. *kwunin-tul-i tali-lul phokphaha-ko
    soldier-PL-NOM bridge-ACC blow.up-CONN
    exist-DECL
    (acceptable as repeated actions)
    ‘Soldiers are blowing up a bridge.’

There are subtle differences between *phokphalha-ko* ‘explode’ and *phokphaha-ko* ‘blow up’. One main difference is that the former can be repeated, dynamic actions while the latter may not. In a natural context, the latter happens at a single moment. Though (54b) its on-going process and state readings. The present analysis, in addition to the licensing conditions in (53), assumes that the property of the existent verb *iss-ta* ‘exist’ also plays an important role in determining the progressive and resultant reading (see §4.2). That is, we assume that the verb *iss-ta* is an auxiliary verb in the progressive state reading, while it is a main verb in the resultant state reading. What this means is that in the progressive state, the auxiliary just marks the aspect while in the resultant state reading, the existent verb contributes to the main semantic content. There is a contrast between the main verb and auxiliary verb use of *iss-ta*. Consider the following:

(i) a. Mimi-ka cangkap-ul kki-ko coyonghi iss-ta
    Mimi-NOM glove-ACC wear-CONN calmly exist-DECL
    ‘Mimi remains calm with the gloves on.’

b. Mimi-ka wuntongcang-ul (yelsimhi) talli-ko (*yelsimhi) iss-ta
    Mimi-NOM ground-ACC diligently run-CONN deligently exist-DECL
    ‘Mimi is diligently running the ground.’

c. Mimi-ka ku tap-ul al-ko coyonghi iss-ta
    Mimi-NOM the answer-ACC know-CONN calmly exist-DECL
    ‘Mimi knows the answer and stays calmly in that state.’

The verb *kki-ko* can induce ambiguous readings, but when the manner adverb precedes the verb *iss-ta* as in (ia), we have only a resultant reading since the adverb can modify only a main verb. With the verb *talli-ko* ‘run’ as in (ib), we can have only a progressive reading in which the verb *iss-ta* is used as an auxiliary verb. This is why no manner adverb (e.g. *yelshimhi* ‘diligently’) can intervene between the main verb and the auxiliary. The cognition verb *al-ko* can induce only a resultant reading, implying that the verb *iss-ta* serves as a main verb in (ic) as indicated by the possibility of being modified by the manner adverb here. These observations point out that the lexical properties of the existent verb *iss-ta* also play a key role in the interpretation of imperfective constructions.
sounds strange as an instantaneous action, appropriate contextual cues can make the situation continuous, dynamic actions as seen from the naturally occurring example extracted from Google:

(55) haykwun kici-lul kenselha-ki wihay Kwulumbi-lul kyesokhayse
    navy base-ACC build-NMLZ for Kulumbi-ACC continuously
    phokphaha-ko iss-ta
    blow.up-CONN exist-DECL
    ‘(The government) is blowing up the Kwulumbi area to build a naval base.’

The situation here describes iterative actions even though the verb inherently denotes a punctual event happening at a single moment. The examples in (54) and (55) imply that aspectual shift is nontrivial in the language and that contextual clues play an important role in representing the eventuality in question.

Note that the -KO ISSTA construction is natural even with an Unaccusative verb as long as the eventuality involved expresses a preparatory process. One could assume, as argued by E. Lee (2008), the -KO ISSTA selects a transitive and unergative verb with an external argument. However, note in (56) that there are many examples where the subject of the construction is an internal argument, bearing a theme role.

(56) a. elum-i nok-ko iss-ta
    ice-NOM melt-CONN exist-DECL
    ‘The ice is melting.’

b. tayanamwu-ka malla cwuk-ko iss-ta
    bamboo-NOM dry die-CONN exist-DECL
    ‘(lit.) The bamboo is dying of being dry.’

The subject in these sentences does not play an actor role since an external factor causes the happening of each event here. Similar facts can be observed from cases with a passive or goal (or experiencer) subject:

(57) a. umakhoy-ka yel-li-ko iss-ta
    concert-NOM open-PASS-CONN exist-DECL
    ‘The concert is being held.’

b. ku-nun pinan-ul pat-ko iss-ta
    he-TOP criticism-ACC receive-CONN exist-DECL
    ‘(lit.) He is receiving criticism.’
In these examples, the subject does not have an actor role, but we have a progressive reading, indicating that the subject property alone cannot be a sole determining factor in licensing the -KO ISSTA construction. Each of these cases describes repeated preparatory processes, satisfying the condition in (53).

4.2 Representing a resultant state

In the previous section we have discussed that the -KO ISSTA imperfective is most natural with non-stative eventualities in representing the progressive aspect. We have seen that two different types of achievement can have this reading since they can include processes at the preparatory phase or culmination processes with an appropriate context. Now consider the third type of achievement involving cognition or psychological predicates which focus on the durative intervals (processes) of the eventuality at the resultant phase (see also Ahn 1995, Oh 2005, E. Lee 2006, M. Kim 2009, J. Kim 2011b).

(58) a. Mimi-ka ku tap-ul al-ko iss-ta
   Mimi-NOM the answer-ACC know-CONN exist-DECL
   ‘Mimi knows the answer and stays in that state.’

b. Mimi-ka Minho-lul salangha-ko iss-ta
   Mimi-NOM Minho-ACC love-CONN exist-DECL
   ‘Mimi loves Minho and stays in that state.’

The canonical -KO ISSTA construction represents a progressive state, but these examples, as we have discussed in §3.2, describe a resultant state, as indicated in the English glosses. To be more precise, the eventuality here denotes not a progress state but a consequent state or post-event resultant state.

Note that unlike the resultant achievement, the abstract achievement does not have a resultant reading in the -KO ISSTA construction:

(59) pihayngki-ka ilkwukha-ko iss-ta
    airplane-NOM take.off-CONN exist-DECL
    ‘The airplane is taking off.’

Taking off the ground is a process and can reach a culmination point. The difference between abstract achievements and resultant achievements can be supported by entailment relationships as well. A resultant state reading is possible when there is an entailment relationship between the event at the culmination point and the one at the consequent state. This entailment relationship appears to be related to the so-called
‘imperfective paradox’. Consider the following:

(60) a. Mimi-ka kyengki-lul iki-ko iss-ta
    Mimi-NOM game-ACC win-CONN exist-DECL
    ‘Mimi is winning the game.’

    b. Mimi-ka tap-ul al-ko iss-ta
    Mimi-NOM answer-ACC know-CONN exist-DECL
    ‘Mimi is in the state of having known the answer.’

These two have an entailment difference:

(61) a. Not entail: Mimi has won the game.
    b. Entail: Mimi has known the answer.

The paradox is resolved by the fact that (60a) does not assert that the resulting state is attained at the consequent stage. The difference thus emerges with respect to the entailment relationship between the two states: culmination stage and consequent stage. That is, the resultant state reading depends on the fact that the resultant state is attained or not.

These observations tell us that the resultant state reading of the -KO ISSTA construction is attained only when the eventuality reaches a culmination point serving as a starting point and further when this durative state is attained at the consequent stage. This leads us to posit the following conditions:

(62) Licensing Conditions for the Resultant State

    The -KO ISSTA construction can induce a resultant state reading when the eventuality reaches a culmination point and this property holds at the durative resultant phase.

In what follows, we shall discuss how these conditions can give us an answer to the ambiguous readings in -KO ISSTA construction.

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21 As given in Dowty (1979), the imperfective paradox has to do with how to explain why Max was running entails Max ran, but Max was running home does not entail Max ran home.

22 In a similar manner, Ahn (1995:36) proposes that the resultant reading of the -KO ISSTA construction co-occurs with resultative telic events. One main difference from the present analysis is that Ahn’s analysis does not focus on the property of the resultant phase. We have pointed out in this paper that one essential property of the resultant reading is to sustain the property in question at the consequent stage.
4.3 Ambiguity puzzles

As noted in the beginning of this paper, a puzzle of the -KO ISSTA construction comes from the possibility of having two readings:

(63) a. Mimi-ka os-ul ip-ko iss-ta (P-state & R-state)
Mimi-NOM clothes-ACC wear-CONN exist-DECL
‘Mimi is putting on clothes or Mimi is wearing clothes.’
b. Mimi-ka sinpal-ul sin-ko iss-ta (P-state & R-state)
Mimi-NOM shoes-ACC wear-CONN exist-DECL
‘Mimi is putting on shoes or Mimi is wearing shoes.’

These examples not only express a progressive state (P-state) but also denote a resultant state (R-state) reading. One generalization that has been noted is that ‘reflexive’ verbs as given in (64) can induce such an ambiguity (cf. K. Lee 1993, Han 1999, Yang 2004 for further discussion):

(64) ip-ta ‘wear (clothes)’, sin-ta ‘wear (shoes)’, ssu-ta ‘wear (a hat)’, kki-ta ‘wear (a glove)’, etc.

The reflexive verb is a verb whose agent performs an action that is directed at itself and characteristically takes a reflexive pronoun as its object. This ‘reflexive’ condition may explain why non-reflexive verbs like mek-ta ‘eat’ or kuli-ta ‘draw’ do not induce ambiguous readings. They induce only a progressive reading:

(65) a. Mimi-ka sakwa-lul mek-ko iss-ta (P-state)
Mimi-NOM apple-ACC eat-CONN exist-DECL
‘Mimi is eating an apple.’
b. Mimi-ka kulim-ul kuli-ko iss-ta (P-state)
Mimi-NOM picture-ACC draw-CONN exist-DECL
‘Mimi is drawing a picture.’

However, as noted by M. Kim (2009), there are nonreflexive verbs allowing both a progressive and a resultant state reading:

(66) a. Mimi-ka kapang-ul tul-ko iss-ta (P-state & R-state)
Mimi-NOM bag-ACC lift-CONN exist-DECL
‘Mimi is lifting a bag or Mimi is holding a bag.’
b. Mimi-ka mwun-ul camku-ko iss-ta (P-state & R-state)
   Mimi-NOM door-ACC lock-CONN exist-DECL
   ‘Mimi is locking the door or Mimi has the door locked.’

c. Mimi-ka pwul-ul phiwu-ko iss-ta (P-state & R-state)
   Mimi-NOM fire-ACC set-CONN exist-DECL
   ‘Mimi is setting a fire or Mimi has the fire set.’

As seen here, verbs like *lift*, *lock* or *set a fire* can hardly be taken to be reflexive verbs whose action is directed to the subject. Observing this, M. Kim (2009) posits two different entries for the marker -ko and the verb *iss-*, and suggests a constraint such that the object in the construction must ‘stay in the state described by the culmination of the VP without changing its physical form’. The proposal seems to be appealing, but issues arise with empirical data. For example, intransitive examples with no object can also induce ambiguities:

(67) a. yelcha-ka cengciha-ko iss-ta (P-state & R-state)
   train-NOM stop-CONN exist-DECL
   ‘The train is stopping or the train has stopped.’
b. Mimi-ka pyek-ey kitay-ko iss-ta (P-state & R-state)
   Mimi-NOM wall-at lean-CONN exist-DECL
   ‘Mimi is leaning against the wall or Mimi has leaned against the wall.’

These two examples license both a progressive and a resultant reading even without the presence of the object. In addition, consider the example (68) in which the object does not undergo any change in its physical form but has different possibilities in aspectual reading:

(68) a. Mimi-ka ipwul-ul teph-ko iss-ta (P-state & R-state)
   Mimi-NOM blanket-ACC cover-CONN exist-DECL
   ‘Mimi is covering herself with a blanket or Mimi is in the state of having covered with the blanket.’
b. inhyong-i ipwul-ul teph-ko iss-ta (R-state)
   doll-NOM blanket-ACC cover-CONN exist-DECL
   ‘The doll is in the state of having been covered with the blanket.’
c. Mimi-ka ipwul-ul chac-ko iss-ta (P-state)
   Mimi-NOM blanket-ACC search-CONN exist-DECL
   ‘Mimi is searching a blanket.’
In all these examples, the object does not undergo any change in its physical form, but both (68b) and (68c) do not induce ambiguities. The sentence (68b) induces only a resultant reading due to the property of the subject while (68c) has only a progressive reading.

The observations we have made so far indicate that there can be at least three different types of reading for the -KO ISSTA construction, as shown in (69):

\[
\begin{align*}
\text{(69) Three different aspect readings for the -KO ISSTA construction} \\
a. & \quad \text{Progressive reading only: } talli-ta \text{ ‘run’ class verbs} \\
b. & \quad \text{Resultant reading only: } al-ta \text{ ‘know’ class cognition} \\
c. & \quad \text{Progressive or resultant Reading: } ip-ta \text{ ‘wear’ class or inchoative achievement verbs}
\end{align*}
\]

Let us consider activities which typically denote atelic processes in the preparatory phase:

\[
\begin{align*}
\text{(70) a. Mimi-ka wain-ul masi-ko iss-ta (P-state)} \\
& \quad \text{Mimi-NOM wine-ACC drink-CONN exist-DECL} \\
& \quad \text{‘Mimi is drinking wine.’} \\
b. & \quad \text{Mimi-ka chwumchu-ko iss-ta (P-state)} \\
& \quad \text{Mimi-NOM dance-CONN exist-DECL} \\
& \quad \text{‘Mimi is dancing.’}
\end{align*}
\]

These activities have only a progressive reading in the -KO ISSTA construction since they have no culmination point, prerequisite to the resultant reading. Of course, when activities with a goal are coerced into telic eventualities, they can have a resultant reading. Observe the examples in (71):

\[
\begin{align*}
\text{(71) a. maykcwu-lul masi-n-ta} \\
& \quad \text{beer-ACC drink-PRES-DECL} \\
& \quad \text{‘(He) drinks beer.’} \\
b. & \quad \text{maykcwu han can-ul masi-ko iss-ta} \\
& \quad \text{beer one glass-ACC drink-CONN exist-DECL} \\
& \quad \text{‘He drinks a can of beer.’}
\end{align*}
\]

Drinking beer is an atelic activity, but drinking a glass of beer in (71b) includes a goal, coercing the event into a telic one. This object then can induce (71a) a resultative reading to in addition to a resultant reading.
As discussed so far, accomplishments involve both processes and a culmination point, implying that they would give us both readings, depending on the context. Such a prediction can be clearly observed from examples like (72):  

(72) a. Mimi-ka chinkwu-uy meli-lul kkak-ko iss-ta (P-state)
    Mimi-NOM friend-GEN hair-ACC cut-CONN exist-DECL
    ‘Mimi is cutting her friend’s hair.’

b. inhyeng-i meli-lul kkak-ko iss-ta (R-state)
    doll-NOM hair-ACC cut-CONN exist-DECL
    ‘The doll has its hair cut.’

c. Mimi-ka meli-lul kkak-ko iss-ta (P-state & R-state)
    Mimi-NOM hair-ACC cut-CONN exist-DECL
    ‘Mimi is cutting hair or Mimi has her hair cut.’

The verb as well as the connective marker is the same in these three examples, but each has different aspect possibilities. The action of Mimi’s cutting her friend’s hair can be only progressive while the doll’s being in the state of having the hair cut can be at the consequent state. In each case, the focus of the event is different. Meanwhile, (72c) is ambiguous. The preparatory process of cutting her hair can be repeated or the state of having her hair cut can be attained at the consequent stage.

A similar situation can be observed from the following accomplishments:

(73) a. Mimi-ka pesu-lul tha-ko iss-ta (P-state & R-state)
    Mimi-NOM bus-ACC ride-CONN exist-DECL
    ‘Mimi is riding a bus or Mimi has ridden the bus.’

b. Mimi-ka changmwun-ul tat-ko iss-ta (P-state & R-state)
    Mimi-NOM window-ACC close-CONN exist-DECL
    ‘Mimi is closing the window or Mimi has closed the window.’

Considering that accomplishments involve processes, we expect progressive readings for both. In addition, since they are also telic, the state of affairs can be sustained after reaching the culmination point, inducing a resultant reading for both. This reading can be salient when the accomplishment includes a clear goal.

23 The example (72b) with the inanimate subject is intended for a resultant-state reading: someone gave a hair cut to the doll and the doll is in the state of having a haircut.
As for achievements, we have seen that the abstract achievement can have a progressive reading in the -KO ISSTA construction. Observe the following punctual achievements:

(74) a. Mimi-ka ip-ul tamwul-*e/ko iss-ta  
Mimi-NOM mouth-ACC close-CONN exist-DECL  
‘Mimi has closed her mouth.’

b. Mimi-ka nwun-ul ttu-*e/ko iss-ta  
Mimi-NOM eyes-ACC open-CONN exist-DECL  
‘Mimi has opened her eyes.’

The predicates ttu-ta ‘open’ and tamwul-ta ‘close’ can occur in the -KO ISSTA but not in the -A ISSTA since it is a punctual, instantaneous event. When this situation is coerced into culmination processes, we can obtain a progressive reading such as Mimi is in process of closing her mouth. In addition, this can also induce a ‘durative’ resultant reading: after reaching the culmination point of closing the mouth, Mimi can hold the state at the resultant phase.

5. Concluding remarks

We have so far seen the two imperfective constructions interact with lexical as well as with grammatical viewpoint, as summarized in (75).

(75) Interactions between Lexical and grammatical aspect

<table>
<thead>
<tr>
<th>Event types</th>
<th>Resultant State</th>
<th>Progressive State</th>
</tr>
</thead>
<tbody>
<tr>
<td>achievement</td>
<td>-A ISSTA / -KO ISSTA</td>
<td>(-KO ISSTA)</td>
</tr>
<tr>
<td>accomplishment</td>
<td>(-KO ISSTA)</td>
<td>-KO ISSTA</td>
</tr>
<tr>
<td>activity</td>
<td>(-KO ISSTA)</td>
<td>-KO ISSTA</td>
</tr>
</tbody>
</table>

As shown in the table, an achievement can occur in both the resultant and the progressive state while an accomplishment or an activity can occur only in the -KO ISSTA construction:

(76) a. Mimi-ka aphi-*a/*ko iss-ta  
Mimi-NOM sick-CONN exist-DECL  
‘(int.) Mimi is in the state of having been sick/in the process of being sick.’
b. Mimi-ka talli-*a/ko iss-ta (activity)
   Mimi-NOM run-CONN exist-DECL
   ‘Mimi is in process of running.’

c. Mimi-ka uyca-lul mantul-*a/ko iss-ta (accomplishment)
   Mimi-NOM chair-ACC make-CONN exist-DECL
   ‘Mimi is process of making a chair.’

d. Mimi-ka cengsang-ey totalha-ye/ko iss-ta (achievement)
   Mimi-NOM top-LOC reach-CONN exist-DECL
   ‘Mimi is in the state of having reached the top.’ and ‘Mimi is in the process of reaching the top.’

State eventuality does not participate in either cases since the resultant state and progressive state refer to an event structure with triple elements (progressive, culmination, and consequent stage). However, with the help of the inchoative expression ci-ta ‘become’, a state is turned into one denoting a terminal point and thus coerced into an achievement. This is why it allows both imperfective constructions:

(77) a. Mimi-ka cemcem yeppu-e ci-ko iss-ta
   Mimi-NOM gradually pretty-CONN become-CONN exist-DECL
   ‘Mimi is in the process of gradually becoming pretty.’

b. Mimi-ka yocum yeppu-e ci-e iss-ta
   Mimi-NOM nowadays pretty-CONN become-CONN exist-DECL
   ‘Mimi is in the state of having been pretty nowadays.

(77a) indicates that Mimi is gradually becoming pretty with preparatory processes while (77b) represents a state at the consequent phase that Mimi is pretty.

Note that when a predicate can appear in both the -A ISTA and -KO ISTA construction, the -KO ISTA construction does not induce ambiguous readings since the counterpart -A ISTA construction performs the function of representing a resultant state reading as seen from (78):

(78) a. Mimi-nun pyengtul-ko iss-ta
   Mimi-TOP getting.sick-CONN exist-DECL
   ‘Mimi is in the process of getting sick.’

b. Mimi-nun pyengtul-e iss-ta
   Mimi-TOP getting.sick-CONN exist-DECL
   ‘Mimi is in the state of having been sick.’
What this implies is that there is in a sense the division of labor between the two imperfective constructions. That is, when the language requires to represent a resultant state reading for accomplishment and activity, it uses the existing -KO ISSTA imperfective construction. This seems to answer the question of why the language uses two imperfective constructions in representing resultant, more correctly consequent state, readings. It has to do with the property of eventuality. That is, the resultant -A ISSTA construction is sensitive to the achievement eventuality with a culmination point and this event is attained at the consequent stage. Meanwhile, the -KO ISSTA is sensitive to the accomplishment and activity eventuality which consists of two subevents: process and post-event state. When the event in question is attained at the consequent stage after reaching a culmination point, we have a resultant reading. That explains the complementary distribution in expressing the resultant state between the -KO ISSTA and -A ISSTA construction.

In sum, we have shown that the three main properties of eventuality — lexical aspect, viewpoint aspect, and phasal state — are key factors in licensing the -A ISSTA and -KO ISSTA constructions in Korean. Combined with the lexical properties of predicates involved, this view can give us answers to many puzzling facts in the syntax and semantics of Korean imperfective constructions.
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韓語非完整貌句式的時貌特性

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韓語有兩種非完整貌句式：結果狀態式 -A ISSTA 與進行式 -KO ISSTA。學者對這兩種句式的認可條件尚無共識，某些情形下 -KO ISSTA 句式表達結果狀態則使問題更加複雜。本文主張這些複雜的現象與所牽涉事件（尤其是瞬成事件）的細部特性以及詞彙、語法、時相等三個時貌面向彼此之間的緊密互動有關。

關鍵詞：時貌，事件，非完整貌，時相，進行，結果