The Effect of Process/Result Distinction on the Grammaticalization of Verbs[*]

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Kim, Rhanghyeyun. 2002. The Effect of Process/Result Distinction on the Grammaticalization of Verbs. *Korean Journal of English Language and Linguistics* 2-3, 329-372. Tobin (1993) argues that verbs can be classified according to the process/result distinction. He further claims that the grammatical development of the lexical verbs into auxiliary/aspectual verbs is motivated by the distinction. In this paper, first, I reconsider Tobin's (1993) claim in the viewpoint of the principle of persistence (Hopper 1991) or the source determination hypothesis (Bybee, Perkins, and Pagliuca 1994), which states that the meaning of the source construction determines the path of grammaticalization. I then classified tense/aspect/ modality markers according to Tobin's (1993) process/result distinction. Finally, I argue that Tobin's (1993) process/result distinction constrains the distribution of grammaticalized verbs among tense/aspect/modality markers not only in English and but also in Korean.

1. Grammaticalization and the Principle of Persistence

Grammaticalization is a process through which a lexical item in certain uses becomes a grammatical item, or through which a grammatical item becomes more grammatical. Meillet (1912) first recognized the importance of grammaticalization as a theory of language change and is the first who used the word *grammaticalization*. Since then, grammaticalization has taken a significant place as a topic in its own right in the research of a

number of linguists (Givón 1971; Lehmann 1985; Heine and Reh 1984; Bybee 1985; Heine, Claudi, and Hünnemeyer 1991; Traugott and Heine 1991; Hopper and Traugott 1993; Bybee, Perkins, and Pagliuca 1994; Fischer, Rosenbach, and Stein 2000; Krug 2000).

At the early stages of grammaticalization, meaning enrichment or strengthening occurs through pragmatic inferencing (metaphor, metonymy) in the context of the flow of speech. At the later stages, as grammaticalization continues and forms become routinized, meaning loss or bleaching typically occurs. But even so, older meanings may still continue to constrain newer, emptier ones. In other words, when a form undergoes grammaticalization from a lexical to a grammatical item, some traces of its original meanings tend to adhere to it, and details of its history may be reflected in constraints on its grammatical distribution. Hopper (1991) names this tendency the principle of persistence. Bybee, Perkins, and Pagliuca (1994) suggest a stronger hypothesis, i.e., the source determination hypothesis which states that the actual meaning of the construction that enters into grammaticalization uniquely determines the path that grammaticalization follows and consequently the resulting grammatical meanings. Exactly these spirits, I say, are behind Tobin's (1993) claim that the grammatical development of the lexical verbs is motivated by the process/result distinction. That is, the grammaticalization path that a verb follows tends to depend on the process/result distinction of the original lexical verbs. In the next section, I will briefly overview Tobin's (1993) discussion on the process/result distinction.

2. Process/Result Distinction of Tobin (1993)

English is notorious for expressing aspectuality in very diverse ways which break the barriers between the rigid traditional categories of tense and aspect, lexicon and grammar, syntax and

semantics, and Aspect and Aktionsart,[1] thus making aspect in English a particularly challenging area of research. Brinton (1988) hence notes that in English the analysis of aspect seems to pose particularly acute problems since formal markers of aspect are not predominant in the verb - English is a tense not an aspect language - and since lexical markers of aspect do not appear to constitute a coherent system.

However, Tobin (1993) argues that there is a coherent system in English related to aspectuality. This system is based on the semantic distinction between the opposed concepts of process and result, which are viewed as distinctive semantic features in a markedness relationship. More specifically he argues that if a form is marked for the semantic feature RESULT, then an action, state, or event must be viewed from the point of view of a *result, outcome, consequence, conclusion, completion, destination, end point, telic or teleological goal*, etc., which may be explicitly stated or implicitly implied. On the other hand, if a form is not marked for the RESULT semantic feature, an action, state, or event may be viewed either from the point of view of a process and/or result which may be explicitly stated or implicitly implied. He classified performative verbs, sensory verbs, speech act verbs,[2] aspectual verbs,[3] and auxiliary verbs into two groups according to whether they are · result-oriented or neutral/process-oriented. Below, I will illustrate some of his

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[1]Aspect refers to the semantic distinctions concerning the internal structure of actions, states, and events revolving around the notion of aspectuality, while Aktionsart denotes the semantic distinctions related to the lexical meanings of verbs. The former is also called grammatical or viewpoint aspect, while the latter lexical or situation aspect.

[2]Among speech act verbs, *say* and *speak* are classified by Tobin (1993) as neutral/process-oriented verbs, while *tell* and *talk* are classified as result-oriented verbs. Discussion on these speech act verbs and the aspectual verbs in the next footnote is not included in this paper.

[3]Among aspectual verbs, Tobin (1993) classified *begin* and *end* as neutral/process-oriented verbs, while *start* and *finish* are classified as result-oriented verbs.

classification to show more clearly what he means by the process/result distinction.

2.1. Performative Verbs: *Do* (U) vs *Make* (M)

According to Swan (1980), while *do* and *make,* two of the most frequently used verbs in English, share a semantic domain denoting the performance and accomplishment of actions, states, and events, *do* as a main verb is used for general activities in a general or non-specific way to talk about work, while the idea of the creation or construction is the function attributed to the verb *make.*

(1)   a. Do something! (talking about general activity)

       b. !Make something! (talking about general activity)

       c. I am not going to do any work. (talking about work)

       d. !I am not going to make any work.

         (talking about work)

       e. !I've just done a cake.

         (expressing the idea of creation or construction)

       f. I've just made a cake.

         (expressing the idea of creation or construction)

Tobin (1993) interprets this claim as meaning that *make* is marked (M) for the RESULT feature, while *do* is unmarked (U) or process-oriented. He argues that the stronger the emphasis on the result per se, the stronger the chance that *make* is the correct form. Consider the following idioms.

(2)   a. do drugs (take drugs)

       b. make drugs (the product of a chemist)

       c. do dishes (wash dishes)

       d. make dishes (create dishes from glass)

       e. do history (study, read history)

f. make history (create history)

Do drugs just denotes an action of taking drugs, while *make drugs* indicates that drugs are produced as a result of an action. Likewise, *do dishes* just denotes a process of washing dishes, while dishes are created by *making dishes*. Similarly, if we say great people *do history*, this means that they study or read history, but if we say great people *make history*, we mean that they create history.

The role of *do* as a substitute or pro-verb as in (3), Tobin argues, also supports his claim: *do*, the unmarked or neutral form, is the more appropriate of the two to replace other lexical verbs both marked and unmarked for the result feature.

(3)   a. She likes jazz, and I do as well.
       b. She looked at the telephone, and I did as well.
          (look(U))
       c. I saw her go out. - I did, too. (see(M))

In sum, the discussion on the distinction between *do* and *make* shows that the idea of action vs. creation/completion/outcome is an important factor in distinguishing process-oriented/neutral verbs from result-oriented verbs in Tobin (1993).

2.2. Sensory Verbs

2.2.1. *Look* (U) vs. *See* (M)

Among many verbs of visual perception in English, *look* and *see* are the most frequently used verbs. According to Webster's and the OED, while both mean 'perceive something by use of the eyes,' *look* stresses the directing of the eyes in order to see but *see* stresses the reception of visual impression. Tobin (1993) claims that this means that *look* is process-oriented or neutral,

whereas *see* is result-oriented.

2.2.2. *Listen* (U) vs *Hear* (M)

Swan (1980) states that when we just want to say that sounds came to our ears, we use the verb *hear*. *Listen to* suggests that we are concentrating, paying attention, trying to hear as well as possible. Tobin (1993) interprets this fact as meaning that *listen to* is neutral or process-oriented, while *hear* is result-oriented. For Tobin (1993), the process/result distinction is also related with the degree of agency or control over the perception process. As (4) shows, while *listen to* is compatible with such agentive adverbs as *intentionally* and *conscientiously*, *hear* is compatible with such non-agentive adverbs as *inadvertently*.

(4)   a. The policeman inadvertently heard/*listened to the student sing.

        b. The professor conscientiously *heard/listened to the student sing.

In the light of this consideration, in contrast to *hear*, which does not assert that the perceiver is responsible for the perceiving, *listen to* necessarily implies that a short perceived event is somehow anticipated: if the definiteness of the noun phrase reflects the relative expectedness of the event in (5) and (6), (d) sentences are more coherent than (b) sentences since *listen to* suggests that what is perceived is anticipated.

(5)   a. I heard a burst of machine-gun fire.

        b. ?I listened to a burst of machine-gun fire.

        c. I heard the burst of machine-gun fire.

        d. I listened to the burst of machine-gun fire.

(6)   a. I heard someone knock on my door.

b. ?I listened to someone knock on my door.

c. I heard him knock on my door.

d. I listened to him knock on my door.

In sum, the classification of sensory verbs shows that whether the verb just denotes direction or implies actual arrival at the destination is a deciding factor in the process/result distinction of Tobin (1993). The contrast between the two auditory verbs tells us that the process/result distinction is related with the degree of agency or control over the actions, states, events, as well.

2.3. The Process/ Result Distinction and the Principle of Persistence

In the previous two sections, I have briefly overlooked some of Tobin's (1933) classification of verbs to understand exactly what Tobin (1993) means by the process/result distintion. Creation (as a result of action)/completion (of action), actual arrival at destination, non-agency, etc., are characteristics of the result semantic feature, whereas action, pure directing without implication of arrival, agency, etc., are characteristics of the non-resultative. The distinction between these two characteristics is ultimately from his markedness system in terms of the semantic feature RESULT mentioned above; a form marked for the semantic feature RESULT views an action, state, or event from the point of view of a *result, outcome, consequence, conclusion, completion, destination, end point, telic or teleological goal,* etc., while an unmarked form views them from the point of view of a process and/or result.

This much overviewed process/result distinction influences the grammatical development of lexical items, Tobin(1993) claims. That is, when a form undergoes grammaticalization from a lexical to a grammatical item, the process or result characteristics

of its original meaning tend to adhere to it, and be reflected in constraints on its grammatical distribution according to Hopper's (1991) principle of persistence. Or according to Bybee, Perkins, and Pagliuca's (1994) source determination hypothesis, the process/result distinction of the source construction uniquely determines the path that grammaticalization follows and consequently the resulting grammatical meanings.

To support Tobin's (1993) claim, I will first classify aspects/ tenses according to the process/result distinction in the next section and then show in the subsequent section that process-oriented/neutral verbs develop into the process-oriented/neutral aspects/tenses, while result-oriented aspects/ tenses grammaticalize into the result-oriented aspects/tenses.

3. Process/Result Distinction of Aspects/Tenses

In this section, I will divide aspects/tenses into two groups according to the process/result distinction.

Tobin (1993) claims that the progressive is a process-oriented/neutral aspect, while the perfect is a result-oriented one. First, I will add supporting evidence to his argument. I will then argue that not only the progressive but also the aspects/tenses developed from it are all process-oriented/neutral aspects in that they denote ongoing, temporary, incomplete actions. Likewise, I will argue that not only the perfect but also the aspects/tenses around the perfect development cline are all result-oriented in that they denote completion (of action) and/or consequence (of action).

3.1. Progressive Aspect; A Process-Oriented Aspect

The progressive aspect can be counted as a process-oriented aspect in consideration of the following four points.

First, we often use the progressive forms to suggest that

situations and actions are incomplete, while other tenses are used to talk about completed actions.   Tobin (1993) claims that this incompleteness is a process-oriented characteristic.   Consider (7) to (9).

(7)   a. I was reading the Minimalist Program.

       b. I was reading the Minimalist Program when I was interrupted.

(8)   a. I read the Minimalist Program.

       b. *I read the Minimalist Program when I was interrupted.

(9)   a. I had read the Minimalist Program.

       b. *I had read the Minimalist Program when I was interrupted.

While (8a), the past, and (9a), the past perfect, denote completed actions, i.e., that I have finished the book, (7a), the progressive, denotes incomplete actions, i.e., that my reading was not completed at the reference time.   The deviance of (8b) and (9b) follows since the completed action cannot be interrupted. On the other hand, (7b) is grammatical since the incomplete situation can be interrupted.

Second, the progressive forms are also used to indicate that situations and actions are temporary, while other tenses are used to talk about permanent/long-lasting situations.   Tobin (1993) claims that the temporariness is a non-resultative characteristic, while permanence is a resultative.   Consider (10).

(10)   a. Banks lend money to make a profit.

       b. Banks are lending more money to encourage businesses to expand.

c. She teaches Mathematics in a school in Bonn.

d. She is teaching Mathematics in a school in Bonn.

In (10), while the present denotes permanent/long-lasting situations, the progressive denotes temporary situations. That is, while (10a) implies that banks usually lend money to make a profit, (10b) implies that banks' lending more money is a temporary arrangement of these days. Similarly, while (10c) means that teaching Math in a school in Bonn is a permanent/ long lasting job of her, (10d) implies that it is a temporary job of her.

Third, the most common use of the progressive forms is to talk about an action or situation that is going on at a particular moment that we are thinking about. This ongoingness, I argue, is clearly a process-oriented characteristic.

(11)   a. She has an important project to finish by next week,
          so she is working in the evenings at present.

       b. I was working in the kitchen when the phone rang.

Fourth, the progressive can also be used when we talk about changes and developments as in (12). I argue that describing the changing or developing situation is also clearly the characteristic of the process-oriented aspect rather than the resultative one.

(12)   a. The growing number of visitors is damaging the
          footpaths.

       b. I'm beginning to realize how difficult it is to be a
          teacher.

In sum, the progressive aspect can be said to consistently favour a process reading in all of its uses. The fact that the

progressive takes only dynamic verbs indicating activities and processes also supports the claim that the progressive is a process-oriented aspect.

(13)   a. The police are talking to a number of people about the robbery.
       b. We are normally cooking at that time.

(14)   a. ?My brother is having three children, all girls.
       b. ?He doesn't like publicity, and is preferring to stay firmly in the background.

(15)   a. It costs a fortune to fly first class to Japan.
       b. ?It is costing a fortune to fly first class to Japan.
       c. It is costing us a fortune at the moment to send out our daughter to dance classes.

In (13), the progressive is used with dynamic verbs, while it is used with stative verbs in (14). The use of the progressive with a stative verb leads to deviance as in (14) and (15b) unless the described situation can be interpreted as a temporary situation as in (15c). This means that the progressive favours or forces a temporary interpretation, a process-oriented reading.

So far, I have shown and supported Tobin's (1993) claim that the progressive is a process-oriented/neutral aspect. I will below claim that not only the progressive but also the aspects/tenses developed from it are all process-oriented/neutral aspects.

3.2. Other Process-Oriented/Neutral Aspects/Tenses

Bybee, Perkins, and Pagliuca (1994) present evidence for a diachronic path beginning with the progressive and eventually reaching the imperfective or the present. I suspect that the imperfective and the present, which are developed from the

progressive, a process-oriented aspect, are also process-oriented or neutral since they have process-oriented/neutral characteristics in Tobin's (1993) terms. Imperfective, as the contrast partner of perfective, views the situation not as a bounded whole, but rather from within, with explicit reference to its internal structure. In more concrete terms an imperfective situation may be one viewed as in progress at a particular reference point or one viewed as characteristic of a period of time that includes the reference time, that is, a habitual situation.[4] Bybee, Perkins, and Pagliuca (1994) also argue present covers various types of imperfective situations with the moment of speech as the reference point. That is, present includes ongoing activities, habitual situations, etc.[5]

I will also include iterative, frequentative, continuative in process-oriented/neutral aspects since these aspects also view an action or event from the process-oriented viewpoint; iterative describes an event that is repeated on a particular occasion. The notion of iteration is particularly relevant to telic predicates. Frequentative includes habitual meaning - that a situation is characteristic of a period of time - but additionally specifies that it be frequent during that period of time. Continuative includes progressive meaning - that a dynamic situation is ongoing - and additionally specifies that the agent of the action is deliberately keeping the action going.

3.3. Perfect Aspect; A Result-Oriented Aspect

While the progressive is the representative process-oriented

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[4]Imperfective forms are typically used in discourse for setting up background situations, in contrast with perfective forms, which are used for narrating sequences of events.

[5]As I mentioned above, the present is used to describe the permanent or general situation, while the progressive is used to describe the temporary situation. We can say that the progressive is more process-oriented than the present. Possibly, the process reading of the progressive grams becomes weaker developing along the cline.

aspect, the perfect is the representative result-oriented aspect.

First of all, as I have mentioned earlier, while the progressive suggests that the relevant situations and actions are incomplete, the perfect aspect (and the simple past) is used to talk about completed actions at a reference time. Since completion is one of the characteristics of the result feature, Tobin (1993) claims that the perfect aspect (and the simple past, I say) is result-oriented.

(7)   a. I was reading Minimalist Program.
       b. I was reading Minimalist Program when I was
          interrupted.

(8)   a. I read Minimalist Program.
       b. *I read Minimalist Program when I was interrupted.

(9)   a. I had read Minimalist Program.
       b. *I had read Minimalist Program when I was
          interrupted.

I can add the following argument to Tobin's (1993) claim; while the perfect aspect as well as the simple past is used to talk about completed actions, when we use the perfect aspect, it suggests some kind of 'connection' between what happened in the past, and the reference time.

(16)   a. We can't go ahead with the meeting, because very
          few people have shown any interest.
       b. I have found the letter you were looking for. Here
          it is.

In (16a), the fact that very few people showed any interest in the past 'affects' the present situation and in (16b) the speaker

can hand the letter to the hearer now as a 'consequence' of the fact that he found the letter. Since consequence is another characteristic of the result-feature in Tobin (1993), the affect/consequence fact in (16) implies that the perfect aspect is resultative (more resultative than the simple past (see also the footnotes 5 and 6)).

The perfect aspect, which focuses on the completion and the consequence of the action, then can be said to be a result-oriented aspect. A support for our claim comes from the fact that in (17b) in contrast with (17a), we expect that some further resultative information would follow regarding a change of state or situation ('... and then?'). The perfect is a result-oriented aspect, implies a sort of consequence of the past action, and thus we expect some further resultative information would follow.

(17)   a. I was reading Minimalist Program when I was
            interrupted.
        b. I had been reading Minimalist Program when I was
            interrupted.

In sum, I have shown and supported Tobin's(1993) claim that the perfect is a result-oriented aspect. Below I will argue that not only the perfect but also the aspects/tenses around the perfect development cline are all result-oriented.

3.4. Other Result-Oriented Aspects/Tenses

Bybee, Perkins, and Pagliuca (1994) argue that auxiliaries from stative verbs go through a resultative stage, while auxiliaries from dynamic verbs go through a stage of signalling completive or anterior before becoming past or perfective. In a sense, completive, anterior, resultative, perfective, and simple past are similar conceptually in that they all describe a situation that is

completed prior to some temporal reference point. The definition of completive is to do something thoroughly or to completion. An anterior signals that the situation occurs prior to reference time and is relevant to the situation at reference time. Anterior are typically translated with the English Perfect (our term 'the perfect aspect' above). Resultatives signal that a state exists as a result of a past action. They are compatible with the adverb 'still' and are used only with telic verbs, that is, verbs which describe events which have inherent endpoints. Perfectives signal that the situation is viewed as bounded temporarily. Perfective is the aspect used for narrating sequences of discrete events, independent of its relevance to other situations. Past indicates a situation which occurred before the moment of speech. In sum, the characteristics that Bybee et al. (1994) attribute to completive, anterior, resultative, perfective, and simple past are exactly the characteristics of the semantic feature RESULT of Tobin (1993). Thus, I claim that these aspects/tenses are all result-oriented ones.[6]

The passive has also been viewed by scholars as being resultative voice or aspect (Beedham 1982; Schooneveld 1989). More specifically, Beedham (1982) argues, based on the semantic similarity between passive sentences and perfect sentences, that the passive and the perfect should both be viewed as part of the resultative aspect (rather than voice) category. I will adopt this standard assumption, following Tobin(1993).

So far, I have divided aspects/tenses into two groups according to the process/result distinction of Tobin (1993). In

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[6]As mentioned above, even if both the perfect aspect and the simple past are used to describe completed actions, the simple past does not imply any connection between the action and now, unlike the perfect aspect. We can say that the resultative reading of the perfect gram becomes weaker, developing along the cline, just as in the case of the progressive gram.

the next section, I will show that not only in English but also in Korean auxiliary verbs used for process-oriented/neutral tenses/aspects are from process-oriented/neutral verbs, while auxiliary verbs used for result-oriented tenses/aspects are from result-oriented verbs. That is, I will give supporting evidence to the claim that the process/result distinction in the sense of Tobin (1993) constrains the distribution of a grammaticalized verb among tense/aspect/modality markers.

4. Grammaticalization of Verbs

4.1. Grammaticalization to Process-Oriented/Neutral Modals/ Aspects

4.1.1. Process or Modality Marker

4.1.1.1. *do*

In section 2, we have seen Tobin's (1993) claim that *do* is unmarked or process-oriented, while *make* is marked for the RESULT feature. Tobin (1993) claims that the unmarked or process-oriented property of *do* made it possible for *do* rather than *make* to be developed into the so-called Process Marker (Thomson and Martinet 1986). As a Process Marker, *do* indicates the modality of a sentence in the sense of Fillmore (1968),[7] i.e., *do* marks the type of sentence such as negative, interrogative, and emphatic (including imperative) sentences.

(18)   a. I don't know.
       b. What did you do?

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[7]In Fillmore (1968), a sentence is divided into a modality and a proposition node. The modality node serves as an indicator of sentence-type while the proposition node includes the predicate and the arguments of the predicate of a sentence.

     c. He did break the window.

     d. Do have a coffee.

The *do* auxiliary also appears in tag-questions, which are both interrogative and emphatic. Moreover, in addition to the modality function of indicating sentence-types, the verb *do* also provides additional modality information regarding the tense of the sentence to be generated.

Tobin (1993) says that while *do* was developed into a Process Marker, *make* rather than *do* is used as a causative verb as in (19) since a causative construction is result-oriented.

(19)   a. *She did me happy.

       b. She made me happy.

So far I have shown Tobin's argument that *do* as a process-oriented/neutral verb is grammaticalized to a process-oriented modality marker, i.e., a Process Marker. I will show below that the Korean *ha-* verb, a process-oriented/neutral verb, is also grammaticalized to a Process Marker.

4.1.1.2. *ha-*

As one of the most extensively used verbs in Korean, the verb *ha-* in Korean prototypically denotes an action. This prototypical process-oriented verb in Korean was developed into a Process Marker just as the verb *do* was in English. First of all, I will show that the verb *ha-* is a process-oriented verb and then will illustrate that the verb has the Process Marker functions.

As shown in (20) to (22), the verb *ha-* as a main verb has a wide range of interpretations depending on its Theme but it by itself has no inherent meaning other than the denotation of action.

(20)   Yun-i   ku il-ul   hayessta.
       Y.-Nom.   the work-Acc.   did
       'Yun did the work .'

(21)   Yun-i   nolay-lul   hayessta.
       Y.-Nom.   song-Acc.   did
       'Yun sang a song.'

(22)   Yun-i   ttek-ul   hayessta.
       Y.-Nom.   rice cake-Acc.   did
       'Yun did the cooking of rice cake.'

At the first glance, (22) with the verb *ha-* seems to have the same interpretation as (23) with the verb *mantul-*. However, in fact they are not synonymous: (22) focuses on the process of cooking, whereas (23) focuses on the result of cooking, i.e., the creation of *ttek*. That is, the verb *ha-* in (22) has a process reading in contrast with the verb *mantul-* in (23).

(23)   Yun-i   ttek-ul   mantulessta.
       Y.-Nom.   rice cake-Acc.   made
       'Yun made rice cake.'

This process/result distinction is reflected in the interpretation difference between (24) and (25).

(24)   Ne   onul   mwue   hayssni?
       you   today   what   did
       'What did you do?'

(25)   Ne   onul   mwue   mantulessni?
       you   today   what   made?
       'What did you make?'

Suppose that the speaker is asking the question of a carpenter. In (24) with the verb *ha-* the speaker is just asking about what was his action today regardless of whether the action is completed. On the other hand, the speaker in (25) with the verb *mantul-* is likely to be asking about what was created as a result of the carpenter's completed job action today.

The fact that the verb *ha-* is process-oriented in contrast with the verb *mantul-* is also responsible for the grammaticality contrast between (26) and (27).[8]

(26)   swukce hata/ namwu hata
        homework do/ tree do
        'do homework/ gather firewood'

(27)   ??swukce-lul mantulta/ ??namwu-lul mantulta
        homework-Acc. make/ wood-Acc. make
        'make homework/ make wood'

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[8] In this paper I illustrated the cases where the object noun can be combined with the verb *ha-* but not with the verb *mantul-*. An anonymous reviewer pointed out the cases where the object can be combined with the verb *mantul-* but not with the verb *ha-*.

(i) cha-lul/keik-ul/mohyung-ul *hata
    car-acc./cake-acc./model-acc.
(ii) cha-lul/keik-ul/mohyung-ul   mantulta
    car-acc./cake-acc./model-acc.

I say that the more the noun is result-oriented, the harder it is for the noun to be combined with the verb *ha-*. Or conversely, the more the noun is process-oriented, the easier it is for the noun to be combined with · the verb *ha-* as in *seonsayngcil*(teaching)/ *totukcil*(stealing) *hata/*mantulta*. As for the reviewer's case *ttaykam*(firewood) *hata/mantulta*, I say that both sound fine but they are used in different contexts; *ttaykam hata* is used when someone collects firewood, whereas *ttaykam mantulta* is used when someone makes firewood in person.

The phrases in (26) sound natural since the verbs *ha-* just denote an action and thus can be interpreted as meaning the process *do* or *gather* in accord with their Themes. On the other hand, the phrases in (27) sound odd since the verb *mantul-* as a result-oriented verb implies the creation of *swukce/namwu* as a result and creating *swukce/namwu* is odd in a real life.

Similarly, while the sentences in (28) with the process verb *ha-* are interpreted as meaning some process (the process *drink some alcohol* and the process *cut/curl one's hair* respectively), those in (29) with the resultative verb *mantul-* strongly prefer the resultative reading and thus sound odd in general situations. That is, *mantul-* as a result-oriented verb implies the creation of *swul han can* and *meli* in (29a) and (29b), respectively, and the creation sounds natural only in particular situations, i.e., only when the creation of the product is possible as a result of some action, e.g., when we are making a cocktail in (29a) case and when we are making a clay doll in (29b) case.

(28)   a. Swul   han can   hallay?
             alcohol one glass want-to-do
             'Do you want to drink some alcohol?'
          b. Meli   hallay?
             hair   want-to-do
             'Do you want to cut/curl your hair?'

(29)   a. ??Swul   han   can   mandullay?
             alcohol   one   glass want-to-make
             'Do you want to make a glass of alcohol?'
          b. ??Meli   mantullay?
             hair   want-to-make
             'Do you want to make your hair?'

The fact that the verb *ha-* is process-oriented, while the verb

mantul- is result-oriented is also reflected in the contrast between the *ha-* causative and the *mantul-* causative.   In (30) the process verb *ha-* implies *Yenghi*'s causation of the process of *Cheolswu*'s leaving but not necessarily implies that the process is completed as a result.   On the other hand, in (31) the resultative verb *mantul-* implies not only the causation of the process but also the completion of the process.   Therefore, the second clause of (30) is natural but the second clause of (31) contradicts the implication of the first clause.

(30) Yeonghi-ka Cheolswu-lul ttena-key hayss-ciman
        Y.-Nom.   C.-Acc.   leave-to   did-but
     Cheolswu-nun ttenaci ani hayssta
     C.-Top.   leave   not did
     'Yeonghi had Cheolswu leave but he didn't.'

(31) ??Yeonghi-ka Cheolswu-lul ttena-key mantuless-ciman
        Y.-Nom.   C.-Acc.   leave-to   made-but
     Cheolswu-nun ttenaci ani hayssta
     C.-Top.   leave   not did
     'Yeonghi made Cheolswu leave but he didn't.'

The   final   piece   of   evidence   that   the   verb   *ha-*   is process-oriented comes from the *e ha-* construction.

(32) Yun-i   atul-i   coh-ta
      Y.-Nom.   son-Nom.   is-fond
      'Yun is fond of (her) son.'

(33) Yun-i   atul-ul   coha   hanta
      Y.-Nom.   son-Acc.   be-fond   does
      'Yun likes (her) son.'

While the sentence (32) just denotes a state of emotion, the *e ha-* construction in (33) denotes active and volitional aspects of emotion. That is, the verb *ha-* as a semi-modal verb adds the process reading to the verb *coh-* in (33).

In sum, the verb *ha-* can be claimed to be process-oriented (and neutral).[9] Therefore, it seems natural for the verb to be grammaticalized to a Process Marker. It is used as an auxiliary verb in the negation (34) and in the VP-focus construction in (35-6).

(34) Yun-i   chayk-ul   saci   ani   hayessta.
      Y.-Nom.   book-Acc.   buy   not   did
      'Yun didn't buy a book.' [negation]

(35) Yun-i   chayk-ul   saki-nun   hayessta.
      Y.-Nom.   book-Acc.   buy-contrastive   did
      'Yun BOUGHT A BOOK.' [emphatic sentence]

(36) Yun-i   yeyppuki-to   hata.
      Y.-Nom.   be-pretty-emphatic   does
      'Yun IS PRETTY' [emphatic sentence]

That is, as a Process Marker, the verb *ha-* marks the type of sentence such as negative and emphatic sentences. In addition to the modality function of indicating sentence-types, the verb *ha-* also provides additional modality information regarding the tense of the sentence to be generated, just as the English counterpart *do* does. The *ha-* auxiliary also can be said to

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[9]Just as the English counterpart *do* is, the verb *ha-* is used as a substitute or pro-verb for lexical verbs both marked and unmarked for the result feature. I suspect that *ha-* as well as *do* is originally a process-oriented verb but the process-reading becomes weaker as the verb develops along the grammaticalization cline and thus the verb becomes process-oriented and neutral.

appear in tag-questions, just as the English counterpart *do* does, even though there could be some controversy on the tag-question status of (37-8).

(37) Yun-un   chayk-ul   sasse,   ani kule ha-ni?
      Y.-Top.   book-Acc.   bought,   not so   do-Q
      'Yun bought a book, didn't she?'

(38) Yun-un   chayk-ul   saci   ani hayesse, kule ha-ci?
      Y.-Top.   book-Acc.   buy   not did   so   do-Q
      'Yun didn't buy a book, did she?'

In sum, in this section I have shown that the verb *ha-* is a process-oriented verb and that this verb is grammaticalized to the Process Marker, just as the verb *do*, its English counterpart, is. In the next section, I will consider the grammaticalization to the progressive aspect.

4.1.2. The Progressive Aspect

According to many linguists (Blansitt 1975; Comrie 1976; Traugott 1978; Heine and Reh 1984; Heine, Claudi, and Hünnemeyer 1991; Bybee, Perkins, and Pagliuca 1994), there is a strong tendency for progressive aspect to derive from locative expressions; the locative notion may be expressed either in the verbal auxiliary employed or in the use of postpositions or prepositions indicating location - *at*, *in*, or *on*. The verbal auxiliary may derive from a specific postural verb such as *sit*, *stand*, or *lie* or it may express the notion of being in a location without reference to a specific posture but meaning only *be at*, *stay*, *live*, or *reside*. What is important to our discussion here is that the verbal auxiliary involved in the progressive aspect is neutral ones in the process/result distinction; that is, verbs of posture, verbs of existence (often developed from verbs of

posture or verbs of location), and verbs of copula (often developed from locational, postural, existential verbs)[10] involved in the progressive aspect are all neutral in that they do not view a relevant action, state, or event from the point of a result, outcome, consequence, conclusion, completion, destination, end point, telic or teleological goal, etc.. I say that this general tendency - the source construction of the progressive aspect, the process-oriented aspect, involves only the neutral verbs - is exactly in line with Tobin's (1993) claim (and ultimately Hopper's (1991) and Bybee, Perkins, and Pagliuca's (1994)). That is, the process-oriented/neutral verbs are grammaticalized to the process-oriented/neutral aspects/tenses, while the result- oriented verbs are grammaticalized to the result-oriented aspects/tenses.

Below, let us see two cases of the progressive aspect; English progressive and Korean progressive.

4.1.2.1. Be -ING

English progressive consists of be-auxiliary plus the affix -ing. The verb be, as a copular verb or an existence verb as illustrated in (39), is neither process-oriented nor result-oriented.

(39)   a. Tom is a cat. (class-membership)
       b. Jean is old. (property-assignment)
       c. Armadillos are mammals (class-inclusion)
       d. John is the doctor (identity)
       e. Jane is in the room (location in the space)
       f. The lecture is at four (location in time)
       g. Bachelors are unmarried adult males (definition)

Tobin(1993) argues that be is unmarked or neutral with regard to Process and Result while have and get are marked for Result.

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[10]Quirk and Greenbaum (1979) distinguish between current versus resulting copulas. The former includes be and the latter make an get.

Exactly due to this unmarked property, *be* is probably used as an auxiliary verb for passive, i.e., a result-oriented aspect, as well as an auxiliary for progressive aspect. Then, a question would arise how the construction of *be*-auxiliary plus the affix *-ing* develops into a progressive aspect, i.e., a process-oriented aspect rather than a result-oriented aspect; there are two relevant factors here.

One is the location element diachronically involved in the English progressive. Currently, the English progressive is made up of only a copula and the affix *-ing*. However, Jespersen (1949) postulates the construction with a locative preposition before the gerund as in (40) and (41) as the origin of the progressive.

(40)   He is on hunting.

(41)   He was a-coming home.

If his hypothesis is right, the meaning of the locative preposition will adhere to the construction and this location schema (Heine 1994) will give rise to the progressive meaning, i.e., be in the place of doing something, be at doing something, or be located in the middle of doing something.

The other relevant factor is the *-ing* form involved in the progressive aspect, as Tobin (1993) suggests. Huffman (1989) proposes that the participle forms differ with regard to the degree of vividness; the *-ing* suffix means MORE VIVID, *-ed* means LESS VIVID. MORE VIVID indicates that we are in the middle of things with regard to an activity, i.e., we are in the central core of the activity. Therefore, Tobin (1993) says, the *-ing* suffix, focusing on the actual activity, can be said to be process-oriented. On the other hand, LESS VIVID indicates that we are not in the middle of things but somewhere on the

periphery. Therefore, the -ed suffix, focusing on a state resulting from an activity, can be said to be result-oriented. Further, discussing the difference between -ing and -ed participles and gerunds, Fradkin (1991) claims that -ing, used alone, (i.e., without the auxiliary be) (either as a gerund or as a verbal adjective), refers to the action in general or to particular instances of the action, while -ed, used alone, describes results of actions, rather than action themselves.

(42)   a. Smoking is bad for you.
       b. A smoking chimney indicates that somebody is home.

(43)   a. a torn shirt, a depressed area
       b. They saw us pulled over by the cops.
       c. Startled by the knock, Andrew's cup fell.

Tobin (1993) claims we can then say that the property of -ing suffix leads the construction of be-auxiliary plus the affix -ing to have the process-oriented meaning rather than the result-oriented one.

In sum, Tobin (1993) argues that the English progressive, the process-oriented aspect, consists of the verb be, a neutral verb, and the affix -ing, a process-oriented suffix. I added to the argument that the process reading of the progressive could also come from the historically lost locative preposition before the gerund (cf. Jespersen 1949; Heine 1994). In any event, the development of the English progressive is compatible with the argument that the process/result distinction of the source construction determines the grammaticalization path of the construction with respect to the distinction.

4.1.2.2. -Ko ISS-

In the previous section we have seen Tobin's (1993) argument

that the neutral verb *be* and the process-oriented affix *-ing* construction leads to the progressive, the process-oriented aspect. In this section, I will consider the Korean progressive.

The progressive in Korean consists of a particle *-ko* and an existential verb *iss-*.[11] As in the English case, the verb *iss-* is neutral with regard to the Process/Result distinction and this verb is used not only in the progressive construction as in (44) but also in a resultative construction made of a particle *-e* and the verb as in (45).

(44) ku-nun cikum talli-ko iss-ta
      he-top now   run-ko   exist-Dec.
      'He is now running.'   [progressive]

(45) han salam-un   cwuk-e   iss-ta
      one person-top die-e   exist-Dec.
      'One person died and the state of dying persists now.'
      [resultative]

How is it that the neutral verb *iss-* was grammaticalized to a progressive in one case and to a resultative in another?   I suspect that what is relevant is the particle involved in each case, just as what is relevant is the involved suffixes in the English cases.

Koo (1987) argues that *-e* unifies two domains of events denoted by two verbs connected by the particle *-e*, while *-ko* separates them. Choe (1989) says *-ko*, unlike *-e*, seems to include certain degree of termination. Developing these ideas, Rhee (1996) argues that *-e* is very sensitive to the iconic sequentiality of the combined predicates, while *-ko* overlaps two separate

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[11]I will not discuss another more complicated progressive construction *-ko iss-nun-cwung-i-* (and-exist-relative pronoun-middle-be) 'be in the middle of -ing' since this construction is not relevant to our argument.

events.   That is, *-e* combined predicates mean 'V1 and then exist,' which leads to the meaning of 'be in the state of V1's completion' or 'be in a state with V1's effect, i.e., the resultative meaning.   On the other hand, *-ko* combined predicates mean 'V1 and exist at the same time,' which leads to the meaning of the state of ongoingness of V1, i.e., the progressive meaning.   I will interpret his claim in terms of Tobin's (1993) Process/Result distinction.   *-e* can be said to be a result-oriented particle at least in the *-e iss-* construction in that it implies the sequentiality of the combined predicates, i.e., denotes the completion of the action of the first verb and the existence of the result/effect of the completion.   On the other hand, *-ko* is a neutral or process-oriented particle in that it does not imply the completion of the action or the result/effect of the completion but rather focuses on the ongoingness of the first verb action by connecting the first verb and the verb *iss-* synchronically with equal status. Hence, in (44) *talli-ko iss-ta* leads to the progressive meaning[12] since *talli*(run)- and *iss*(exist)- overlap and thus mean the ongoing existence of the action *talli*(run)-.   On the other hand, in

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[12]Rhee (1996) shows that the postural verbs *ancass-*'sit down' and *cappaciess-*'fall back' with the particle *-ko* are also grammaticalized to the progressive aspect.

(i) wus-ki-ko   ancassney
    laugh-cause-KO   sit down
    '(You) are making me laugh. = (You are acting very ridiculously).'
(ii) kulim-man kuli-ko   cappaciessta
     picture-only draw-KO   fall back
     '(He) is doing nothing but drawing pictures.'

These cases of the progressive aspect are then composed of the process-oriented particle *-ko* and the neutral postural verbs.   An anonymous reviewer pointed out that *ancass-* consists of *anca-*(sit) and *iss-*(exist), while *cappaciess-* is made from *cappaci-* (fall back) and *iss-*(exist).   If this is the case, then we can say that the progressive aspect in Korean is composed of the particle *-ko* and the neutral existence verb *iss-*.

(45) *cwuk-e iss-ta* leads to the resultative meaning since *cwuk*(die)- and *iss*(exist)- is combined sequentially and thus mean 'die and then exist,' i.e., the existence of the resultative state after the completion of the dying action.

In sum, the progressive, a process-oriented aspect, is developed from the neutral verb and the process-oriented particle in Korean, just as it is from the neutral verb and the process-oriented suffix in English. Then, the facts on the progressive also show that the process/result characteristics of the source constructions determine the process/result characteristics of the derived grammatical forms.

4.1.3. Other Neutral/Process-Oriented Aspects

The progressive aspect form *-ko iss-* in Korean was developed into an imperfective marker (Rhee 1996), as Bybee, Perkins, and Pagliuca's (1994) cline expects so.

(46)   ku-nun   tampay-lul   phi-ko   issta
        he-top.   cigar   smoke-KO   exist
        'He is smoking now.'   (progressive)
        'He smokes these days.'   (imperfective)

(47)   ku-nun   ku sasil-ul   al-ko   issta
        he-top   that fact-Acc.   know-KO   exist
        'He knows the fact.'   (imperfective)

An imperfective situation is one viewed as characteristic of a period of time that includes the reference time, that is, a habitual situation. As an imperfective, *phi-ko issta* in (46) and *al-ko issta* in (47) present 'smoking' and 'knowing' as a characteristic of the subject's current situation, respectively. What is important to our discussion here is the fact that the imperfective, a process-oriented aspect, has come from the

construction of a process-oriented particle plus a neutral verb by way of the progressive. That is, the development of the imperfective constitute another evidence to the argument that traces of original meanings of the source construction tend to adhere to the grammaticalization path.

Grammaticalization of other verbs to other aspects/tenses remain as a further research area to test the tendency of the process-result distinction of Tobin (1993) to constrain the distribution of grammaticlization among tense, aspect, and modal. The first possible research area would be the continuative aspect expressed by *kata*(go) and *ota*(come) as in *manhun salamtul-i cwuke kanta* (Many people are continuously dying) and *kulehke sala o-assta* (has lived in that way so far). The continuative aspect, I claim above, is a process-oriented aspect and *kata*(go) and *ota*(come) in Korean probably are neutral/process-oriented verbs in that they do not necessarily imply actual arrival at the destination but just denotes direction (cf. section 2.2.2.). Then, these cases could be another support for the tendency claim. It would be worthwhile to research on the same sort of aspectual development from GO and Come verbs in many languages (Heine and Reh 1984; Matisoff 1991); on whether those GO and Come verbs that had developed to the continuative aspects are really process-oriented or not in that languages.

So far, we have seen cases of grammaticalization to process-oriented/neutral tense/aspect/modality markers. First, we saw Tobin's (133) English cases and then my Korean cases. The data form good supports to Tobin's (1993) claim, and ultimately Hopper's (1991) and Bybee, Perkins, and Pagliuca's (1994). In the next section, we will consider cases of grammaticalization to result-oriented tense/aspect/modality markers, which will also support Tobin's (1993) claim, and ultimately Hopper's (1991) and Bybee, Perkins, and Pagliuca's (1994).

4.2. Grammaticalization to Result-Oriented Aspects/Tenses

4.2.1. Passives

English expresses passives with the constructions of *be -ed* and *get -ed*, while Korean expresses passives with the constructions of *-e ci-* and *-key toy-*. We will see that the source constructions of passives in both languages involve resultative items.

4.2.1.1. *Be -Ed*

As noted above, the verb *be*, as a copular verb or an existence verb, is neither process-oriented nor result-oriented. Thanks to the neutral meaning, *be* has been developed into an auxiliary both for the passive voice and the progressive-continuous-imperfective aspect. It is used as a passive auxiliary in the *be -ed* construction, while it is used as a progressive auxiliary in the *be -ing* construction. Tobin (1993) claims the passive meaning, i.e., the result-oriented meaning, of the *be -ed* construction, as I discussed in section 4.1.2.1., comes from the result-oriented meaning of the affix *-ed*; Huffman's (1989) LESS VIVID *-ed* suffix, focusing on a state resulting from an activity, can be said to be result-oriented. Or as Fradkin (1991) said, the affix *-ed*, used alone, describes results of actions, rather than action themselves.

In conclusion, the *be -ed* passive, a result-oriented aspect, can then be claimed to be developed from a resultative source construction, i.e., the neutral verb *be* plus a result-oriented affix *-ed*, as Tobin (1993) claims. In the next section, we will look over the *get -ed* passive.

4.2.1.2. *Get -Ed*

Tobin (1993) argues that *get* in all its lexical, phrasal, and auxiliary uses may be viewed as a result-oriented verb. In its

lexical use, the basic meaning of *get* is 'try to have something and possess it as a result.' In its phrasal use *get*-constructions are also marked for Result, as manifested in the contrast between the *get* phrasal verb constructions in (48-9 b) with the *do* phrasal verb construction (48-9 a).

(48)   a. do over (redo, do something again) [process/result]
       b. get over (overcome, be finished with) [result]

(49)   a. do to (perform an act to someone/something)
          [process/result]
       b. get to (reach, arrive, affect someone) [result]

Get as a result-oriented verb is then expected to develop into a result-oriented aspect. Indeed, *get* is grammaticalized into a passive auxiliary verb, which emphasizes the result of the event rather than describing the event itself. Interestingly, *get* passives are more result-oriented than *be*-passives: Quirk and Greenbaum (1979) note that the 'resulting' copula *get* frequently replaces *be* where the passive draws more attention to the result than to the action. Vanrespaille (1989) also notes that while the *be*-passive can have either a stative meaning or an actional meaning, the *get*-passive is never stative but actional and at the same time always resultative, i.e., a reference to the outcome of the action is implied.

(50)   a. The book was lost.
       b. The book got lost.

While (50a) refers to the state of being lost or the action of being lost by someone, (50b) refers to the action of being lost and the resultative state of being lost. The contrast between these two passives emerges more clearly in the interrogative.

(51)   a. How did the files get stolen?

       b. How were the files stolen?

While (51a) is inquiring how the resultant state came about, (51b) focuses on the action expressed in the main verb. That is, (51a) could be rephrased as (52a), (51b) could be reformulated as (52b).

(52)   a. How come the files are gone?

       b. How was the action of stealing the files carried out?

The contrast between the *be* passive and the *get* passive seems natural since *get* is result-oriented while *be* is neutral.

In sum, the result-oriented verb *get* and the result-oriented affix *-ed* was grammaticalized to the result-oriented aspect, the passive, as Tobin's (1993) claim expects so. This passive is more result-oriented than the *be* passive, since the verb *get* is more result-oriented than the verb *be*.

4.2.1.3. *-cita/-toyta* in Korean

We have seen the grammaticalization of the two English passives, which confirms the claim that the process/result distinction in the sense of Tobin (1993) constrains the distribution of a grammaticalized verb among tense/aspect/modality markers. In this section, we will consider the grammaticalization of Korean passives.

In Korean, the passive is expressed by the *-e cita* construction (Choe 1959:418-9; Lee S.U. 1970:168, 173; Seong 1976) or the (*-key*) *toyta* construction (Choe 1959:418-9; Lee S.U. 1970:168, 173).[13]

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[13]In Korean, passives can also be marked by the affixes *-i,-hi,-li,-ki.*

the -e cita construction

(53) a. wuli-nun   kulttwuk-ul   makassta
          we-Top.   chimney-Acc.   stopped up
          'We stopped up the chimney.'

      b. kulttuk-i   mak-a   ci-essta
          chimney-Nom.   stop up   was-ed
          'The chimney was stopped up.'

(54) a. Cheolswu-ka ku   puwn-uy   sinpuwn-ul palkhiessta
          C. -Nom.   the person's status-Acc. identified
          'Cheolswu identified the person's status.'

      b. ku   puwn-uy   sinpuwn-i   palkhi-e   ci-essta
          the person's   status-Nom.   identify   was -ed
          'The person's status was identified.'

(55) a. na-nun   ai-eykey   yangmal-ul   sinkiessta
          I-Top   child-Dat.   socks-Acc.   got... to put on
          'I got the child to put on his socks.'

      b. yangmal-i   ai-eykey   sinki-e   ci-essta
          socks-Nom.   child-Dat.   got... to put on was -ed
          'The child was got to put on his socks.'

the (-key) toyta construction[14]

(56) a. ku naykak-un   peplyeng-ul   tholon(-ul)   hayessta
          the Cabinet-Top. measure-Acc.   discussion   did
          'The Cabinet discussed measures.'

      b. peplyong-i   ku   naykak-ey uyhay tholon(-i) toy-essta

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[14]In (56a) and (57a), the so called light verb 'ha-(do)' is combined
with verbal nouns *tholon* and *yenkwu*. It is a standard assumption that
the newly formed verb phrases get the argument structure from verbal
nouns, while the Case is transferred from the verb 'ha-(do).' In a
similar line we can think that in (56b) and (57b) the verbal nouns are
combined with the light verb 'toy- (be -ed)' and the newly formed verb
phrases get the argument structure from verbal nouns, while the
passivity is transferred from the verb 'toy- (be -ed).'

measure-Nom. the Cabinet by   discussion was -ed
'Measures were discussed by the Cabinet.'

(57) a. ku hakca-nun chelsay-lul yenkwu(-lul) hayessta
      the scholar-Top migrant birds-Acc. study did
      'The scholar studied migrant birds.'
      b. chelsay-ka ku hakca-ey uyhay yenkwu(-ka) toy-essta
      migrant birds-Nom. the scholar by study   were-ed
      'Migrant birds were discussed by the scholar.'

(58) a. kunye-nun ku-lul   kukos-ey   ka-key hayessta
      she-Top   him-Acc. there-to make to go did
      'She made him to go there.'
      b. ku-nun (kunye-ey uyhay) kukos-ey   ka-key toy-essta
      he-Top. (her by)   there-to   make to go were-ed
      'He was made (by her) to go there.'

The original lexical meanings of the auxiliary verbs *cita* and *toyta* are 'fall, set' and 'become,' respectively. What is important to our discussion is that both of these auxiliaries bear the resultative characteristics.

Let us consider the *cita* verb case, first. When the verb *ci-* is attached to an intransitive verb as in (59b), it adds to the verb V the meaning that there were some difficulties in V-ing but the difficulties were somehow tided over.

(59) a. motun salam-i   ku cha-ey   ta-ssta
      all   people-Nom. the car-in   get-past
      'All people got in the car.'
      b. motun salam-i   ku cha-ey   ta-ci-essta
      all people-Nom.   the car-in   get-CI-past
      'It was possible somehow that all people got in the
      car (despite some difficulties in doing so).'

Crucially, while the verb *ta-*(ride, get in) has an agent *motun salam*, the CI intransitive verb *taci-* does not and cannot have an agent; *motun salam* is not an agent. Rather, the whole event - all people got in the car - was made possible by some unknown forces (K.D. Lee 1977). Exactly this non-agentivity is the characteristic of the result semantic feature as mentioned in section 2.2.2. The argument that the CI intransitive verbs are non-agentive is supported by the fact that the agent-oriented adverbs such as *kikkei* ('willingly') cannot be used with the CI intransitive verbs as illustrated in (60b).

(60)   a. motun salam-i   kikkei   ku cha-ey   ta-ssta
           all people-Nom.   willingly   the car-in   get-past
           'All people got in the car.'
        b. ?? motun salam-i   kikkei   ku cha-ey   ta-ci-essta
              all people-Nom.   willingly   the car-in   get-CI-past
           '??It was willingly possible that all people got in the car (despite some difficulties in doing so).'

Moreover, the original lexical meaning itself of the verb *ci-* is non-agentive as claimed in Rhee (1996); the verb *ci-* implies 'fall' - naturally occurring events, which are caused by extra-human forces such as the gravity, the divinity or something superhuman.

Next, consider the *toyta* verb case. (61) focuses on the fact that he is now a doctor as a result of changing. This sentence does not mean that he is/was changing to a doctor.

(61)   ku-nun (khese)   uysa-ka   toy-essta
        he-top (when he was grown up) doctor-nom.   became
        'He became a doctor (when he was grown up).'

The claim that the *toyta* sentence is resultative is supported by the fact that the *toyta* sentence is not compatible with the direction-denoting *lo*-adverbial as shown in (62).

(62)   *ku-nun (khese)   uysa-lo   toy-essta
        he-top (when he was grown up)   doctor-nom. became
        'He became a doctor (when he was grown up).'

The resultative character of the *toyta* verb is also reflected in the contrast between (63) and (64).

(63)   Yeonghi-ka   Cheolswu-lul   ttena-key   hayss-ciman
        Y.-Nom.   C.-Acc.   leave-make to did-but
        Cheolswu-nun   ttenaci   ani   hayssta
        C.-Top.   leave   not   did
        'Yeonghi had Cheolswu leave but he didn't.'

(64)   *Cheolswu-nun ttena-key toyess-ciman ttenaci ani hayssta
        C.-Top. leave-make to   was ed-but   leave   not   did
        '*Cheolswu was made to leave but he didn't leave.'

The first clause of (63) with the process-oriented verb *ha*-(do) does not imply that Cheolswu left even though Yeonghi had him leave and thus the first clause does not contradict the second clause as mentioned earlier in the section 4.1.1.2. On the other hand, the first clause of (64) with the result-oriented verb *toy*-(become) does imply that Cheolswu left because he has to for some reason and thus the implication of the first clause contradicts the second clause.

In sum, I have shown that the verbs involved in the two passive constructions in Korean, i.e., *cita* and *toyta*, are result-oriented.   This   also   supports   the   claim   that   the process/result distinction of the lexical verbs determines the

grammaticalization path.   In the next section, we will consider the grammaticalization to another result-oriented aspect, the perfect.

4.2.2. Perfect

4.2.2.1. *have*

In English, the verb *have* is used as an auxiliary for the perfect, a result-oriented aspect.   Tobin (1993) claims that the verb *have* is resultative, more resultative than the verb *be*, for the following reasons.

First, while *be* denotes an intrinsic state of existence or being between one or more entities in a neutral way, *have* denotes an extrinsic state of existence, i.e., relating two entities in a resultative kind of state, as Benvensite (1971) claims.   From this, Tobin (1993) leads to the idea that the verb *have* is more resultative than the verb *be*.   I agree with their claim since as in (65) *have* denotes the possession relation, i.e., the extrinsic state of existence, that is resulted from some previous actions.

(65)   a. She has a book under her arm.
        b. We have information.
        c. I had a letter this morning.
            (possession)

Second, *have* refers to other various kinds of state such as relationship, illness, and experience as in the sentences in (66), which are resultative when compared to the sentences in (67) with the verb *be*.

(66)   a. John has a brother/a girlfriend (human relationship)
        b. The house has a roof (whole-part relationship)
        b. I have a headache. (illness)

    d. We had a good time. /
      We had a slight earthquake last night. (experience)

(67) a. John is my brother/ Diane is John's girlfriend.
      (identity/definition)
    b. Whales are mammals. (class-inclusion)
    c. I am sick. (property-assignment)
    d. We were happy. (property-assignment)

Human relationship (John has a brother) is more resultative than identity/definition. (John is my brother). Whole-part relationship (The house has a roof) indicates a more resultative whole-part inclusive reading than class-inclusion (Whales are mammals). The property of having a headache implies a resultative change of state, while being sick just describes the current state. Experience is a resultative state, while being happy is just a property assigned to a state.

Third, the verb *have* is used in the causative construction which is resultative in nature and in the passive or pseudo-passive construction which is also resultative.

(68) I can't have you do that. (causative)

(69) a. He had his photograph taken.
    b. He had his left leg broken.
      (passive/pseudo-passive)

Then, we can say that *have*, a result-oriented verb, is a more appropriate candidate than *be* for an auxiliary of the perfect, a result-oriented aspect, Tobin (1993) argues. That is, the process/ result distinction constrains the distribution of a grammaticalized verb among tense/aspect/modality markers.

In passing, it would be worthwhile to mention the history of

the perfect in English. Jespersen (1964) (and Visser 1963-73; Brinton 1988; Denison 1993; etc.) discusses how *have* has historically replaced *be* as an auxiliary verb in the perfect aspect. *Be* was used with intransitive verbs (typically with meanings in the area of movement and change of state) to form the perfect in Old English, while *have* was used with transitive verbs: eventually the *have* perfect spreaded from transitive verbs to intransitive verb, resulting in the current use. This replacement, I suspect, probably takes place since the verb *have* is more resultative than the verb *be* and thus is a more appropriate candidate than *be* for an auxiliary of the perfect.

In the next section, we will consider the Korean perfect in the viewpoint of Tobin's (1993) claim.

4.2.2.2. -ess-

In Korean, *-ess-* expresses both the perfect aspect and the past tense. These aspect/tense, we claimed above, are result-oriented. We then expect that the source construction is also result-oriented. This is exactly what we found in Korean. Historically, *-ess-* is claimed to be from the *-e iss-* construction (Rhee 1996). This construction consists of the particle *-e* and the existence verb *iss-*. While the verb *iss-* is neutral with regard to Process/Result distinction, *-e* in contrast with *-ko* is resultative as we discussed above. That is, the source construction, the *-e iss-* construction, contains a resultative element.

4.2.3. Other Result-Oriented Aspect; Resultative

In this last section, I will consider one result-oriented aspect, the resultative, in Korean, in the viewpoint of Tobin's (1993) claim.

The *-e iss-* construction went through a resultative stage before becoming the past and the perfect; it began to be used as a resultative since the fifteenth century as in (70) (Rhee 1996) and

then it developed into a perfect/past markers with the phonologically reduced form -es- around the seventeenth century, resulting in the current form -ess-. The fact that the resultative consists of the resultative particle -e and the neutral existence verb iss- is compatible with the claim that the process/result distinction of the source construction tend to constrain the distribution of the gramaticalized forms among tense/aspect/ modality markers.

(70) han salam-un   cwuk-e iss-ta
      one person-top die-e   exist-Dec.
      'One person died and the state of dying persists now.'
      [resultative]

Before closing this section, I would like to mention that the cline that the -e iss- construction follows is exactly the cline of Bybee, Perkins, and Pagliuca (1994); a stative verb develops to a resultative and then to the past or the perfect.

5. Summary

Language may reflect two fundamental ways of viewing actions, states, or events; either as focusing on the ongoing process or alternatively from the point of view of the result. Tobin (1993) argues that verbs can be classified according to the process/result distinction. He further claims that the grammatical development of the lexical verbs into auxiliary/aspectual verbs is motivated by the distinction. In this paper, first, I reconsidered Tobin's (1993) claim in the viewpoint of the principle of persistence (Hopper 1991) or the source determination hypothesis (Bybee, Perkins, and Pagliuca 1994). I also have illustrated Tobin's (1993) classification of verbs according to the process/result distinction to show more clearly what he mean by

the process/result distinction. From this, we have seen that creation/completion, actual arrival at destination, non-agency, etc., are characteristics of the result semantic feature, whereas action, pure directing without implication of arrival, agency, etc., are characteristics of the non-resultative. I then classified tense/ aspect/modality markers according to Tobin's (1993) process/ result distinction. I argued that not only the progressive but also the aspects/tenses developed from it are all process-oriented/neutral aspects and that not only the perfect but also the aspects/tenses around the perfect development cline are all result-oriented. Then I showed that Tobin's (1993) process/ result distinction constrains the distribution of a grammaticalized verb among tense/aspect/modality markers not only in English and but also in Korean, taking examples.

The tendency can be extended to other cases in English, Korean, and other languages. I hope this work can be done in future research.

References

Beedham, Ch. 1982. *The Passive Aspect in English, German and Russian.* Tübingen: Gunter Narr Verlag.

Benveniste, E. 1971. *Problems in General Linguistics.* Miami: University of Miami Press.

Blansit, Edward L. 1975. Progressive Aspect. *Working Papers on Language Universals* 18, 1-34.

Brinton, L. J. 1988. *The Development of English Aspectual Systems.* Cambridge: Cambridge University Press.

Bybee, Joan L. 1985. *Morphology: A Study of the Relation Between Meaning and Form.* Amsterdam: John Benjamins Publishing Company.

Bybee, Joan L., R. Perkins, and W. Pagliuca. 1994. *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World.* Chicago: The University of Chicago Press.

Choe, Hyon-Bae. 1959. *Kipko Kochin Wuli Malpon* (Revised Our Grammar). Seoul: Cengum Mwunwhasa.

Choe, Hyon-Bae. 1989. *Wuli Malpon* (Our Grammar). the 15th edition, Seoul: Cengum Mwunwhasa.

Comrie, Bernard. 1976. *Aspect*. Cambridge: Cambridge University Press.

Denison, David. 1993. *English Historical Syntax*. New York: Longman Publishing.

Fillmore, C. 1968. The case for case. *Universals in Linguistic Theory*. New York: Holt, Rinehart and Winston.

Fischer, O., A. Rosenbach, and D. Stein. 2000. *Pathways of Change: Grammaticalization in English*. Amsterdam: John Benjamins Publishing Company.

Fradkin, R. 1991. *Stalking the Wild Verb Phrase*. Lanham, New York, London: University Press of America.

Givón, Talmy. 1971. Historical Syntax and Synchronic Morphology: An Archaeologist's Field Trip. *Chicago Linguistics Society 7*, 394-415.

Heine, Bernd. 1994. Grammaticalization as an Explanatory Parameter. *Perspectives on Grammaticalization*. Amsterdam: John Bengamins Publishing Company.

Heine, Bernd, U. Claudi, and F. Hünnemeyer. 1991. *Grammaticalization: A Conceptual Framework*. Chicago: University of Chicago Press.

Heine, Bernd and Metchthild Reh. 1984. *Grammaticalization and Reanalysis in African Languages*. Hamburg: Helmut Buske.

Hopper, Paul J. 1991. On Some Principles of Grammaticalization, *Approaches to Grammaticalization 1*, 17-35. Amsterdam: John Benjamins Publishing Company.

Hopper, Paul J. and Elizabeth C. Traugott. 1993. *Grammaticalization*. Cambridge: Cambridge University Press.

Huffman, A. 1989. Teaching the English Tenses. *Colombia University Working Papers in Linguistics 10*.

Jespersen, O. 1949. *A Modern Grammar of English on Historical Principles*, vol. 4, *Syntax*, part 3. *Time and tense*. London: Allen and Unwin.

Jespersen, O. 1964. *Essentials of English Grammar*. Alabama: University of Alabama Press.

Koo, Hyun Jung. 1987. Ssikuth {-a, -key, -ci, -ko}uy ssuimkwa uymi (The Usage and Semantics of suffixes, -a, -key, -ci, -ko. *Konkuk Emwunhak* 11-12, 167-188.

Krug, M. G. 2000. *Emerging English Modals: A Corpus-Based Study of Grammaticalization*. New York: Mouton de Gruyter.

Lee, Kidong. 1977. Codongsa '-cita'uy Uymi Yenkwu (A Study on the Meaning of the Auxiliary Verb -cita). *Hangul* 161, 29-61.

Lee, Sanguk. 1970. Kwuke-uy satong · phitong kwumwun yenkwu. (A research on the passive and the causative in Korean). *Kwukeyenkwu* 26.

Lehmann, Chrsitian. 1985. Grammaticalization: Synchronic Variation and Diachronic Change. *Lingua e Stile* 20, 303-318.

Matisoff, James A. 1991. Areal and universal dimensions of grammaticalization in Lahu. *Approaches to Grammaticalization 2*, 383-453. Amsterdam: John Benjamins Publishing Company.

Meillet, Antoine. 1912. L'evolution Des Formes Grammaticales. *Scientia* 12.26: 6. Repr. in A. Meillet, Linguistique historique et linguistique general 1, 130-48. Paris: Champion, 1948.

Quirk, R. and S. Greenbaum. 1979. *A University Grammar of English.* Longman.

Rhee, Seongha. 1996. *Semantics of Verbs and Grammaticalization: The Development in Korean from a Cross-Linguistic Perspective.* Doctoral Dissertation, The University of Texas at Austin.

Seong, Kwangswu. 1976. Kwue-uy kancep phitong-ey tayhayeo (On the indirect passive of Korean). *Mwunpepyenkwu* 3.

Swan, M. 1980. *Practical English Usage.* Oxford: Oxford University Press.

Thomson, A. J. and A. V. Martinet. 1986. *A Practical English Grammar.* 4th ed. Oxford: Oxford University Press.

Tobin, Yishai. 1993. *Aspect in the English Verb: Process and Result in Language.* New York: Longman Publishing.

Traugott, Elizabeth Closs. 1978. On the expression of spatio-temporal relations in language. *Universals of human language, vol.3, Word Structure.* Stanford: Stanford University Press.

Traugott, Elizabeth Closs and Bernd Heine. eds. 1991. *Approaches to Grammaticalization,* 2 vols. Amsterdam: John Benjamins Publishing Company.

Vanrespaille, M. 1989. The English Get-Passive. Paper given at the Cognitive Linguistics Symposium. Duisburg, 28 March - 1 April 1989.

Visser, F. T. 1963-73. *An Historical Syntax of the English Language,* 3 parts; 4 vols. Leiden: E.J. Brill.

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