LEXICAL INFORMATION AND PRAGMATIC INFORMATION: REFLEXIVITY OF AN EVENT AND RESULTATIVE CONSTRUCTIONS IN JAPANESE

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ABSTRACT

This paper examines the interaction of semantic factors of reflexivity in the availability of result type *te-ir* and *te-ar* constructions in Japanese. The semantic factors of reflexivity have been examined in a number of studies, and they are known to be of relevance to the *te-ir* construction of result interpretation as well as to the availability of the *te-ar* construction. It has not been made explicit, however, whether the reflexivity is a lexical property of a predicate or it is part of the pragmatic information or the information provided in the actual event in context. I will demonstrate that reflexivity relevant in the two constructions derives from two separate sources; the reflexivity as lexically-encoded information and the reflexivity as contextually-supported. The interaction of lexicon and pragmatics has been studied from various points of view. The definition of lexical information and that of pragmatic information varies across theories. The present study suggests one way of discriminating the two.

1. LEXICAL INFORMATION AND PRAGMATIC INFORMATION

It has been of much concern these days how lexicon is to be structured. Lexicon was once thought of as a simple list of words with a limited set of information necessary for syntactic mapping. In the trend of lexlicalism which dates back to early 1980s, more emphasis came to be placed on lexicon. At the same time, syntax was simplified and generalized. The more simplified the syntax was, the more complicated the lexicon had to be, since the overall complexity of linguistic structures was never reduced.

For instance, one of the essential parts of lexical information is argument structure. The argument structure used to be more closely tied to subcategorization, which is relevant to syntactic mapping. As argument structure was elaborated in a greater detail, it came to be more associated with event structure of verbs, examining more closely at the semantic side of information than the syntactic side. The event structure is closely tied to the way the event denoted by the verb canonically evolves in the real world. This means that lexical information necessarily draws on extra-linguistic information.

It is well-known that the interpretation of a sentence is greatly affected by pragmatic, contextual factors of various kind. However, it is not true that pragmatic factors can do anything. Many sentences are never grammatical in whatever kind of context they are used. In fact, the extent to which pragmatics can override syntactic restrictions is very limited. Pragmatic effect is usually of more modest kind: it, for instance, disambiguates the referent of a pronoun, or it saves a sentence which is grammatically correct but is uninterpretable due to semantic anomaly. There are still cases where pragmatic factors interact more closely with syntactic restrictions. Then the question is how pragmatic information interacts with

syntactic and lexical information of constituent words.[1]

It has been observed that reflexivity of the event denoted by the predicate affects the interpretation of both *te-ir* and *te-ar* constructions in a contrastive way ([7], [10], [11], [14]); roughly put, reflexivity of the predicate induces result interpretation in the *te-ir* construction ([10]), while reflexivity blocks result interpretation in the *te-ar* construction ([7]). What has escaped notice, however, is that those "reflexive predicates" concerned refer to overlapping but incongruent sets. Certain reflexive predicates that induce result interpretation of *te-ir* construction unexpectedly fail to block result interpretation of *te-ar* construction. The problem with the foregoing analyses is that they did not properly discriminate the types of reflexivity concerned. By examining the incongruency of the data, I will demonstrate that the semantic reflexivity discussed in the literature actually fall into two types, and that one type of semantic reflexivity resides in the specification of lexical items while the other one in the information of the context. Lexical information and pragmatic information ought to be thus distinguished, since their effects are independent and interactive.

2. ASPECTUAL INTERPRETATIONS OF *TE-IR* AND *TE-AR* AND REFLEXIVITY

2.1 Result Interpretation of *Te-ir* and *Te-ar*

Te-ir construction is composed of a verb stem ending in *te* and an auxiliary verb *ir*, '(for an animate being) to exist.' Its meaning is mainly aspectual: it either denotes a progressive state of a process or a resultant state of a process, besides allowing for repetitive, perfect, or experiential interpretations. Of great concern up to present in the literature is the ambiguity between the progressive interpretation and the result interpretation. It has been pointed out that, very roughly speaking, progressive interpretation potentially obtains when the verb in the stem form denotes a durative process, while result interpretation potentially obtains when the process denoted by the verb entails some change of state or position of the theme argument. When both interpretations are potentially available, i.e., when the verb is [+durative, +change in theme], the progressive one prevails unless the verb is in passive voice or the verb is unaccusative ([6], [10]):

(1) a. Taroo   -ga   miti   -o   hasitteiru   (progressive)
         nom   road   acc   run-ir
      'Tom is running on the road.'
     b. Taroo   -ga   omotya   -o   kowasiteiru   (progressive)
         nom   toy   acc   break-ir
      'Tom is breaking the toy.'
     c. Omotya   -ga   kowasareteiru   (result)
         toy   nom   break-PAS-ir
      'The toy is broken.'
     d. Taroo   -ga   miti   -ni   taoreteiru   (result)
         nom   road   loc   collapse-ir
      'Tom has collapsed and is lying on the road.'

Te-ar construction, on the other hand, is composed of a verb stem ending in *te* and an auxiliary verb *ar*, '(for an inanimate thing) to exist.' It also has a mainly aspectual meaning, either result or perfect, besides experiential and repetitive meanings. The following are some examples of *te-ar* construction in result meaning:[2]

(2) a. Osara -ga   arattearu.
       dish   now   wash-ar
       'The dish is washed.'
    b. Okyaku -o   gonin   yondearu.
       guest   acc   5-persons   invite-ar
       'Five guests are invited.'

Te-ar construction in result interpretation is more complex than *te-ir* construction interpretation in view of its syntactic variations and semantic constraints. Syntactically, the construction has two types: active type and passive type. The passive type is based on a transitive or a ditransitive verb, and it lacks an agent argument, with the non-agent argument appearing with the nominative case -ga. Different from the true passive, however, the nominative-marked argument fails to pass certain syntactic "subjecthood test" such as honorification ([12], [13]), and, therefore, the "passiveness" is only superficial. The relation between the two types of *te-ar* constructions has not been made clear.[3] Semantically, the construction of either syntactic type must meet the following constraints: (1) the process must be the one the agent has deliberately undertaken, (2) the theme must have undergone an explicit change of state or position. The availability of this construction is limited for some reason, except in fragmental conversational forms, although this construction has long been in Japanese grammar.

For the sake of simplicity of discussion, I will limit my argument to *te-ir* and *te-ar* constructions involving two-place predicates, and the passive type *te-ar* result construction. The analysis ought to be applicable to other cases as well. Some comments are made when problems are liable to occur.

2.2   Reflexivity and *Te-ir and Te-ar*: Canonical Cases

It has been observed that semantic reflexivity of predicate affects the availability of result interpretation for both *te-ir* and *te-ar* constructions. As for *te-ir* construction, some [+durative, +change in/of theme] transitive verbs in active voice allows result interpretation as well, contrary to the generalizations above ([10]):

(3) a. Taroo -wa   ima   kami -o   kin'ironi   someteiru
              top   now   hair   acc   gold   dye-ir
       'Taroo is dying/has dyed his hair gold.'
    b. Taroo -wa   ima   ude   -o   otteiru
              top   now   arm   acc   break-ir
       'Taroo ?is breaking/has broken his arm.'

These sentences are characterized by the relation of "inalienable possession" that holds between the subject and object. That is, the object arguments of these sentences denote a body part of the subject argument. As a result, these verbs are semantically "reflexive" in the sense that the denoted process affects the state of the subject argument. In contrast, the following sentences, in which the object argument is not associated with the subject argument, have only progressive interpretations. This contrast strongly supports the claim that the semantic reflexivity is crucial for the availability of the result interpretation:

(4) a. Taroo   -wa   ima   Keiko -no   kami   -o   someteiru
        top   now   gen   hair   acc   dye-ir
    'Taroo is dying/*has dyed the hair of Keiko.'
   b. Taroo -wa   ima   ume -no   eda   -o   otteiru
        top   now   plum gen   branch acc   break-ir
    'Taroo is breaking/*has broken the branch of a plum tree.'

Similarly, the verbs of *putting on* are also known as inducing result interpretation of *te-ir* sentences [10]:[4]

(5) a. Taroo   -wa   ima   seetaa   -o   kiteiru
        top   now   sweater   acc   put on-ir
    'Taroo is putting on/has put on a sweater now.'
   b. Taroo -wa   ima   boosi   -o   kabutteiru
        top   now   hat   acc   put on-ir
    'Taroo is putting on/has put on a hat now.'

[10], in support of his syntactic analysis of *te-ir*, argues that these sentences involve phonetically-empty prepositional phrases which are in an inalienable-possessive relation with the subject argument.

(6) a. ?Taroo   -wa   ima   *zibun -no*   *karada* -ni   seetaa   -o   kiteiru
        top   now   self   gen   body   loc   sweater   acc   put on-ir
    'Taroo is putting on/has put a sweater on his head.'
   b. Taroo   -wa   ima   *zibun -no*   *atama* -ni   boosi -o   kabutteiru
        top   now   self   gen   head   loc   hat   acc   put on-ir
    'Taroo is putting on/has put a hat on his head.'

    Although the syntactic reality of the prepositional phrase is quite dubious since, for instance, the sentence in (6a) sounds much worse than [10] notes with one question mark, the semantic reflexivity of the action of the verbs of *putting on* is unquestionable; as a result of the action of *putting on* something, that "something" is moved and comes to be located on (a part of) the body of the subject argument.

    In short, *te-ir* sentences involving [+durative, +change in/of theme] verbs like *some* 'to dye,' or 'to break,' *ki* 'to put on,' and *kabur* 'to put on' can have a result interpretation only when the predicate is semantically reflexive, and the denoted event affects back the subject argument.

    As for *te-ar* constructions, the reflexivity has a reverse, blocking effect. Even when the action is deliberately undertaken and the resulting state is explicit, *te-ar* sentences are not grammatical if the event affects back the base subject argument[5] ([7]). The examples cited by [7] also involve the verbs of *putting on*. Contrast the *te-ir* sentences in (5) with the following:

(7) a. *Akai seetaa   -ga   kitearu
        red   sweater   nom   put on-ar
    '(Lit) A red sweater is put on.'
   b. *Ookina boosi -ga   kabuttearu
        big   hat   nom   put on-ar
    '(Lit) A big hat is put on.'

The verbs involved here, *ki* and *kabur* 'to put on,' are reflexive, and *te-ar* sentences are not available.[6]

3. PROBLEM: INCONGRUITY OF THE REFLEXIVE CLASS

3.1 Two Types of Non-Canonical Pattern

So far the picture of the two constructions is symmetrical: reflexivity exerts positive versus negative effects on the availability of result interpretation. However, the sets of reflexive predicates exerting these contrastive effects are not identical. Certain reflexive predicates allowing the result interpretation of *te-ir* sentences fail to block the result interpretation of *te-ar* sentences. The verb some 'to dye' in (3a) above, for instance, makes an acceptable *te-ar* sentence:

(8) (Taroo -wa) ima   kami -ga   kin'ironi   sometearu
           top   now   hair nom   gold   dye-ar
      '(Lit) A for Taroo, his hair has been dyed gold now.'

The following examples show some patterns of the pairs of *te-ir* and *te-ar* constructions. Verbs of *putting on* generally behave in an expected way; reflexive predicates induce *te-ir* resultatives and block *te-ar* resultatives:

(9) a. Taroo   -wa   seetaa -o   kiteiru
                 top   sweater acc   put on-ir
         'Taroo is putting on/has put on a sweater.'
     b. Taroo -wa   kuroi kutu -o   haiteiru
                top   black shoes acc   put on-ir
         'Taroo is putting on/has put on black shoes.'

(10) a. *Seetaa   -ga   kitearu
          sweater nom   put on-ar
         '(Lit.) A sweater is put on.'
     b. *Kuroi kutu -ga   haitearu
          black shoes nom   put on-ar
         '(Lit.) Black shoes are put on.'

As the first set of exceptions, verbs of *taking off*, the opposite of *putting on*, do not conform to the expected pattern; they allow both *te-ir* resultatives and *te-ar* resultatives:

(11) a. Taroo   -wa   kooto -o   nuideiru
                 top   coat acc   take off-ir
         'Taroo is *taking off*/has taken off a coat.'
     b. Taroo   -wa   kutu -o   nuideiru
                 top   shoes acc   take off-ir
         'Taroo is *taking off*/has taken off shoes.'

(12) a. Kooto -ga   nuidearu
      coat   nom   take off-ar
      '(Lit.) A coat is taken off.'

   b. Kutu   -ga   nuidearu
      shoes   nom   take off-ar
      '(Lit.) Shoes are taken off.'

As the second set of exceptions, most of the verbs denoting actions involving inalienable possession, in the sense of [10], go against the expected pattern. The verbs involved in the following sentences are reflexive in the sense that the subject argument represents the locus of the resultant state of the event, and yet they allow both *te-ir* resultative and *te-ar* resultative:

(13) a. Kyoko -wa   makkani kutibiru -ni   kutibeni -o   nutteiru
            top   very red lips   loc   lipstick acc   paint-ir
        'Kyoko is putting/has put on red lipstick on her lips.'

   b. Kyoko -wa   kami -o   tyairo -ni someteiru
           top   hair acc   brown   dye-ir
        'Kyoko is dying/has dyed her hair brown.'

(14) a. ?(Kyoko -no   kutibiru -niwa) Makkani kutibeni   -ga   nuttearu
             gen   lips   dat-top very red lipstick   nom   paint-ar
        '(Lit.) (On Kyoko's lips) red lipstick is put on.'

   b. ?(Kyoko -no) Kami -wa   tyairo -ni   sometearu
             gen   hair   top   brown   dye-ar
        '(Lit.) (Kyoko's) hair is dyed brown.'

Given these data, it is clear that the notion "reflexivity" is not elaborate enough to accommodate the whole range of result interpretations of *te-ir* and *te-ar* constructions. The notion of reflexivity needs more specification.

3.2 Topicality and Result Interpretation: The First Non-Canonical Pattern Explained

To account for the puzzling patterns of data, in what follows, I will very briefly explain why and how reflexivity interacts with the interpretation *te-ir* and *te-ar* constructions in the canonical case, summarizing the previous discussion in the literature, and then examine the non-canonical cases in question. I side with a semantic or cognitive standpoint as opposed to a syntactic one.

Between progressive interpretation and result interpretation, *te-ir* constructions always prefer the former as long as it is potentially available. This is because *te-ir* construction is in active voice, and the subject argument, which is always more prominent, is usually the source of energy when the transmission of energy is involved ([2], [5]). *Te-ir* construction, therefore, allows result interpretation only when the agentive argument (=subject) is defocused, when the agentive argument is absent from the beginning, or when the event occurs momentaneously. One of the exceptional circumstances to this generalization is when the event is reflexive. When the event is reflexive, the subject argument happens to be the goal of energy transmission as well as its source; hence, it is able to represent the locus of the result of the event.

Te-ar constructions, on the other hand, are distinct from *te-ir* constructions in that they are not active *par excellence*, if not passive *par excellence*, either. The agentive argument is usually omitted either in

the passive-type *te-ar* or in the active-type *te-ar*; *te-ar* constructions have a kind of anti-agent orientation. When the event is reflexive, the agentive argument necessarily comes into the picture, even if the agentive argument is left unexpressed. To put it the other way, in the case of semantic reflexive predicates, the resulting state of the theme argument is uninterpretable without reference to the agent, which goes against the anti-agent orientation of the *te-ar* resultative construction. [7] explains this in terms of the notion of "topicality." Since the agent argument is inherently high in topicality, it interferes the expected result interpretation of *te-ar* construction, where the theme argument ought to be the center of topicality.[7]

The following data support this line of explanation:

(15) a.   (Kodomo   -ni)   seetaa   -ga   kisetearu
          child   dat   sweater   nom   put on-ar
          '(Lit) A sweater is put on a child.'

     b.   Seetaa   -ga   ki-hurusitearu
          sweater   nom   put on-old-ar
          'The sweater is worn out.'

These sentences manage to avoid the reflexivity constraint because in (15a) the verb is lexical causative *kise* 'make put on,' and the process is directed not toward the agent (causer) but toward the recipient (goal, causee) marked with dative *ni*; and in (15b) the verb is resultative compound *ki-hurus* 'wear out / wear and make old,' and the resulting state is not the state of the agent but the state of the theme (sweater) itself.

In addition to the canonical data in (9)-(10), those in (11)-(12) are readily accountable on [7]'s line, by elaborating the notion of semantic reflexivity. The verbs of *taking off* denote a process which detaches the theme argument from the agent. The sentences in (11) describe the state of the agent, that someone is without clothes or shoes. *Te-ar* sentences with these verbs in (12), on the other hand, denote the "existence" of the clothes or the shoes (i.e., the theme) apart from the wearer, and this is the only possible interpretation since *te-ar* construction has the anti-agent orientation as mentioned above. They cannot be taken as describing the state of the wearer in the same way as (11). Crucially, the description of clothes apart from the wearer is possible with these verbs because of the nature of the process that they denote. In this sense, verbs of *putting on* and those of *taking off* are semantically different; even though both may be syntactically compatible with a coreferential NP phrase associated with the theme argument, the verb of *taking off* are not semantically reflexive in the sense that the resulting locus of the theme and the agent are separable. Such a separation between the wearer and the clothes is impossible with the verbs of *putting on*, and hence the ungrammaticality of the *te-ar* sentences in (10).

Now what about (13) and (14)? The verbs in the sentences in (13) are apparently semantically reflexive in the same way as the verbs of *putting on*; they denote a process which affects a body part of oneself and the end state of the process is not detachable from the referent of the base subject argument. Next section looks more closely into the result interpretation of *te-ir* and *te-ar* constructions and how reflexivity affects it the way it does.

4. LEXICALIZED REFLEXIVITY AND CONTEXTUALLY-SUPPORTED REFLEXIVITY

There is in fact a difference between the verbs involved in (9)-(10) and (13)-(14). Unlike verbs in (8)-(9), those in (12)-(13) are compatible with a phrase referring to someone other than the subject, meaning that the result of the process resides in that someone rather than in the subject argument:[8]

(16) a. *Taroo -wa Kyoko -ni seetaa   -o   kiteiru

            top   dat   sweater acc   put on-ir

      '(Lit.) Taroo has put a sweater on Kyoko.'

   b. *Taroo -wa Kyoko -ni kuroi kutu -o   haiteiru

           top   dat   black shoes acc   put on-ir

      '(Lit.) Taroo has put black shoes on Kyoko.'

(17) a. Kyoko -wa Yuuko -ni   kutibeni   -o   nutteiru

            top   dat   lipstick   acc   paint-ir

      'Kyoko is putting/*has put on lipstick on Yuuko's lips.'

   b. Kyoko -wa Yuuko -no kami   -o   tyairo -ni someteiru

           top   gen hair acc   brown   dye-ir

      'Kyoko is dying/*has dyed Yuuko's hair brown.'

Not surprisingly, all the grammatical sentences in (17) have only progressive interpretation rather than result interpretation, since they are obviously not reflexive in meaning.

What does the contrast in (16)-(17) signify? I suggest that this has to do with the types of reflexivity. In so far as the verbs in (14)-(15) can denote a non-reflexive process without changing their morphological form, the verbs are not lexically specified as reflexive. They are lexically underspecified as to the reflexivity, while the reflexive interpretation is certainly compatible and pragmatically preferred. As the data in (13)-(14) and their interpretation indicate, they are more likely to be interpreted reflexively unless they are specified otherwise as done in (17).

The verbs of *putting on* in (9)-(10), on the other hand, are more strictly reflexive; their denoted action cannot be directed to no one other than the subject. Since this reflexive nature of the denoted action is obligatorily associated with the predicate, it would be reasonable to assume that the reflexivity in question is encoded in the lexical specification of the predicate. In other words, different types of reflexivity are related to the *te-ir* result construction and the *te-ar* result construction. Any type of relexivity, both lexicalized and otherwise, can contribute to the result interpretation of the *te-ir* construction; thus all sentences in (8), (10), and (12) are grammatical. The prevention of the result interpretation of *te-ar* construction imposes a stricter requirement; only lexically specified reflexive verbs can block the result interpretation of *te-ar* construction.

Let me examine this conclusion and its implications in more detail. The pragmatically established reflexivity appears to be enough to exert the expected effect in the *te-ir* construction. In fact, the result interpretation of the *te-ir* construction is available under more "lax" condition than reflexivity of the denoted process. It could obtain so long as the subject argument is, say, "affected" by the process, to use the notoriously vague notion.

(18) a. Kyoko -wa (zibun -no) kodomo -ni   kutibeni   -o   nutteiru

            top   self   gen   child   dat   lipstick   acc   paint-ir

      'Kyoko is putting/has put on lipstick on her child's lips.'

   b. Kyoko -wa (zibun -no) kodomo -no kami   -o   tyairo -ni someteiru

            top   self   gen   child gen hair   acc   brown   dye-ir

      'Kyoko is dying/has dyed her child's hair brown.'

In each of the sentences in (18), the action is not directed back to the agent *Kyoko* herself, and yet the

result interpretation is possible. Note, however, that for these sentences to have result interpretation, it is crucial that the subject argument has a strong control over the direct-affectee of the action, the possessor of the body part of the theme argument. *Kodomo* 'child' in the sentences in (18) must be interpreted as referring to a very small child. The result interpretation is more difficult to obtain if the possessor of the body part is older, more independent, and supposedly more responsible for his/her own behavior.

(19) a.　Kyoko -wa　(zibun -no)　hatati -no　musume　-ni　kutibeni　-o　nutteiru
　　　　　top　　self gen　20 years old　daughter　dat　lipstick　acc　paint-ir
　　　　　'Kyoko is putting/*has put on lipstick on her 20-year-old daughter's lips.'

　　　b.　Kyoko -wa　(zibun -no)　hatati -no musume　-no kami　-o　tyairo -ni　someteiru
　　　　　top　　self gen　20 years old　daughter　gen hair　acc　brown　dye-ir
　　　　　'Kyoko is dying/*has dyed her 20-year-old daughter's hair brown.'

The sentences in (19) normally allow only progressive interpretations. It is irrelevant whether Kyoko, the referent of the subject argument, is emotionally affected by her daughter's action or not. What matters is that the daughter is grown up and is expected to act on her own will. Given these data, what is relevant to the result interpretation of *te-ir* construction seems not the notion of "affectedness" but that of "control." The subject argument must have a control over the state of the locus of the denoted event, be it the body part of itself or that of someone else.

　　　The controllability is not likely to be specified in the lexical information. So, for instance, if Kyoko's daughter in (19a) has been unconscious in bed for years, and Kyoko, who has been taking care of her, has put on lipstick on her lips, the sentence sounds much better. Note that the source of the contrast of interpretation is not the properties of the referent of *Kyoko* or her daughter but the actual nature of the relation between the referent of *Kyoko* and the resultant state involving her daughter.

　　　Now let us examine the cases of *te-ar* construction, repeated below, again.

(10) a. *Seetaa　-ga　　　kitearu
　　　　　sweater　nom　　put on-ar
　　　　　'(Lit.) A sweater is put on.'

　　　b. *Kuroi　kutu　-ga　　haitearu
　　　　　black　shoes　nom　　put on-ar
　　　　　'(Lit.) Black shoes are put on.'

(14) a. ?(Kyoko -no　　kutibiru　-niwa)　Makkani　kutibeni　-ga　　　nuttearu
　　　　　　　gen　lips　　　dat-top　very red　lipstick　nom　paint-ar
　　　　　'(Lit.) (On Kyoko's lips) red lipstick is put on.'

　　　b. ?(Kyoko -no)　Kami　-wa　tyairo -ni　　sometearu
　　　　　　　gen　hair　top　brown　　dye-ar
　　　　　'(Lit.) (Kyoko's) hair is dyed brown.'

　　　I have argued that what brings this grammatical contrast is lexical information of the predicate. Whether the base subject argument of the predicate is affected after all makes no difference to the grammaticality of the sentences. The predicates involved in (10) are lexically reflexive, as mentioned above, in the sense that they cannot denote a process by which the body part of a third party is directly affected. Those in (14), on the other hand, could denote either a reflexive or a non-reflexive process. Crucially, the choice is irrelevant to the grammaticality of the sentence.

(20) a. ?(Zibun -de kutibeni -o nutta rasiku, Kyoko -no kutibiru -niwa)
      self   by   lipstick acc paint seem   gen   lips   dat-top
      Makkani   kutibeni -ga   nuttearu
      very red   lipstick   nom   paint-ar
      '(It seems that Kyoko put on lipstick by herself, and) red lipstick is put (on her lips).'

b. ?(Yooko -ga kutibeni -o nutta rasiku, Kyoko -no kutibiru -niwa)
           nom   lipstick acc paint seem   gen   lips   dat-top
      Makkani   kutibeni -ga   nuttearu
      very red   lipstick   nom   paint-ar
      '(It seems that Yooko put lipstick on Kyoko's lips, and) red lipstick is put (on her lips).'

(21) a. ?(Zibun -de someta rasiku) Kyoko -no kami -wa tyairo -ni sometearu
      self   by   dye   seem   gen   hair top   brown   dye-ar
      '(It seems that Kyoko dyed her hair by herself, and) her hair is dyed brown.'

b. ?(Yooko -ga someta rasiku) Kyoko -no kami -wa tyairo -ni sometearu
           nom dye   seem   gen   hair top   brown   dye-ar
      '(It seems that Yooko dyed Kyoko's hair, and) Kyoko's hair is dyed brown.'

The a-sentences involve a reflexive process, in that the agent does something to oneself, while the process in b-sentences is not reflexive. This contrast is totally independent of the availability of *te-ar* sentences.

Unsurprisingly, it is irrelevant whether the base subject holds the direct affectee under his/her control or not. Hence, if the base subject has dyed the hair of his/her infant child, the result *te-ar* sentence is not blocked.

(22) ?(Hahaoya -ga someta rasiku) Akanboo -no kami -wa tyairo -ni sometearu
           nom dye   seem baby   gen   hair   top   brown   dye-ar
     '(It seems that the mother dyed the baby's hair, and) the baby's hair is dyed brown.'

What these data suggest is that the types of reflexivity concerned in the result interpretations of *te-ir* and *te-ar* constructions are different. *Te-ir* result interpretation requires only that the subject be related to the resultant state via direct or indirect involvement. The subject, the primary figure of the predicate, must be either the locus of the resultant state or have a control over the locus of the resultant state. Whether or not a certain resultant state is under the control of the subject argument is pragmatically determined. It is not prescribed in the lexical specification or in the argument structure of the predicate. The same combination of the verb and the arguments may have different degrees of the subject's involvement, leading to different interpretations.

The *te-ar* constructions, on the other hand, concern a narrower sense of semantic reflexivity. The mere relatedness, involvement, or control is not sufficient. The base subject argument, or the locus of the resulting state, must be either identical with or physically a part of the primary figure of the predicate. Moreover, the reflexivity merely pragmatically supported is not enough. The result interpretation is blocked only when the predicate is lexically specified as denoting a reflexive process. A predicate is lexically specified as denoting a reflexive process when the primary figure is necessarily the locus of the resulting state irrespective of the actual context it is used in. Whether the locus of the resulting state happens to be identical with or to belong to the primary figure of the predicate does not matter if the predicate is lexically non-reflexive.

5. CONCLUSION

This paper has re-examined the interaction of reflexivity and the result interpretation of *te-ir* and *te-ar* constructions. The foregoing analyses have pointed out the relevance of reflexivity, but have failed to specify its the informational source. I have demonstrated that reflexivity relevant in the two constructions derives from two separate sources; lexical information of the predicate and the information provided in context.

The discussion regarding the result interpretation of *te-ir* and *te-ar* constructions has led to the following suggestions as to the structure of lexical information. In a lexical structure, a distinction should be made between verbs that necessarily denote a process that affects back the agent and those that only optionally denote such a reflexive process. The former ought to be lexically specified as reflexive, while the latter be left unspecified as to the reflexivity. Even if the reflexive option is predominantly taken without the information of otherwise, the predicates of the latter type do not behave exactly the same way as the lexicalized reflexive verbs. Certain constructions such as *te-ir* are sensitive to the information given broadly, whereas certain other constructions including *te-ar* are sensitive only to the information as specified in the lexical structure of the predicate.

The present study covers only a small portion of linguistic phenomena. However, its implication is general. It has been claimed in recent years that pragmatic factors ought to be included in the lexicon. The present study has shown that we need to pay more attention to different types of pragmatic factors and to the way lexicon incorporates such information.

6. NOTES

1   Compare the debate between [3] and [9] regarding how informationally enriched the lexicon should be. See also [4] which claims to properly restrict the pragmatic effects on syntax. [1] presents numerous attempts to reexamine the structure of lexicon.

2   The English translation of *te-ir* and *te-ar* resultatives are very often in passive voice since the exact corresponding contstructions are not available. It is important to note that this is only for the sake of convenience, and that the *te-ir* and *te-ar* constructions are distinct from ordinary syntactic passives.

3   It is not clear whether *te-ar* constructions really fall into clearly-distinct syntactic classes of active-type and passive-type. Besides the dubious status of the passive-type *te-ar*, in most of the active-type *te-ar* construction with result interpretation, the agent with nominative case sounds very awkward. The sentences usually occur without a nominative argument. If it really has to occur with the agent, the agent is usually marked with a topic marker wa instead. Although subjectless sentences are not uncommon in Japanese, this "avoidance of subject" of *te-ar* construction has been a mystery because the tendency of avoidance is so strong and systematic that it seems almost a part of its intrinsic property.

4   The verbs of *putting on*, i.e., *ki, hak*, and so on, could be glossed either as 'wearing' or as 'putting on.' I use the latter term throughout the paper so as to make clear the aspectual ambiguity of the construction. I assume that the state of having the cloth on is a resultant state of the process of putting it on.

5   In what follows I use the term *base subject* to refer to the subject argument of the predicate in stem form of the passive-type *te-ar* construction, which is distinct from its surface subject. The terms *agent* or *agentive argument* is also used for the same purpose when little problem is likely to occur. This practice does not imply a commitment with the premises (1) that passivization and *te-ar* formation involve syntactic derivation and (2) that the role labels such as *theme* and *agent* have some linguistic reality.

6   It is fair to note that the term *reflexivity* is not necessarily used in all the foregoing analyses re-

examined here. The term is employed here to cover the similar ideas presented in thoses analyses

7   [7]'s notion of "topicality" is close to that of "figurehood" in Cognitive approaches ([5]).

8   The sentences in (16b)-(16c) are compatible with a genitive phrase; however, the sentences would only have a possessive interpretation, meaning that Taroo are wearing Kyoko's coat/hat/shoes. The locus of the result remains the subject.

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