Emotive Verbs in English and Japanese[1]

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O. Preface

This paper treats a class of English verbs of emotion such as
pleased, happy, amused, sad, worried, etc. and their Japanese counter-
parts such as yorokobu, tanosimu, kanasimu, nayamu, etc. Henceforth,
they will be called emotive verbs. In Section 1, I will present evi-
dence that both English and Japanese emotive verbs are not inherently
transitive verbs and their surface objects have been derived by a
transformation. In Section 2 and 3, I will discuss two existing analyses
of emotive verbs, both of which consider emotive verbs to be inherently
transitive. I will show why these analyses are wrong.

1. Emotive Verbs as Inherently Intransitive.

In what follows, I will discuss English sentences and their
Japanese equivalents together. A number such as '(1)' is to be inter-
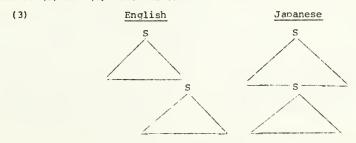preted as referring to two sentences, one English and one Japanese.

Compare sentences (1) with sentences (2)

(1) Alice was {pleased} that [she was popular with boys].
              {happy }   S

     Arisu wa [zibun ga otokonoko ni moteru] koto o yorokonda.
              she   boys with popular S   that pleased, happy

(2) Alice was convinced that [she was popular with boys].
              certain   S

     Arisu wa [zibun ga otokonoko ni moteru] koto o kakusinsita.
                                           S   convinced, certain

Sentences (1) and (2) have the same surface structures such as (3).

(3)   English   Japanese

However, I would like to show that sentences like (1) and sentences
like (2) are quite different in their derivational history and that
the former have derived sentential objects, whereas the latter have
deep structure sentential objects. In the following, I will present
five arguments to justify my claim that emotive verbs are not transitive
verbs on the deeper level.

First, notice that only sentences like (2) have corresponding
causative forms. Compare (4) and (5).

(4) *Bill⎰pleased Alice   ⎱ that ⎰she was popular with boys⎱ .
          ⎱made Alice happy⎰   S

   *Biru wa Arisu ni [zibun ga otokonoko ni moteru] koto o
      yorokob-sase-ta.   S.
      pleased make Pst

(5) Bill⎰convinced Alice ⎱ that ⎰she was popular with boys⎱ .
          ⎱made Alice certain⎰   S

   Biru wa Arisu ni [zibun ga otokonoko ni moteru] koto o kaku-
      sins-sase-ta.   S
      convinced make Pst

Note, furthermore, that causatives like (4) are perfectly grammatical
without their sentential objects, as shown by (6).

(6) Bill has made Alice happy ∅.

   Biru wa Arisu o   ∅   yorokob-sase-ta.

This is not the case with causatives with transitive verbs such as (5).
If they lose their sentential objects, they become ungrammatical.
Observe:

(7) *Bill has convinced Alice ∅.

   *Biru wa Arisu o   ∅   kakusins-sase-ta.

Second, note that stative transitive verbs do not occur in Agentive
causative constructions, as shown below.[2]

(8) *Bill made Alice resemble her mother.

   *Biru wa Arisu o hahaoya ni ni-sase-ta.

(9) *Bill made Alice see a ghost.

   *Biru wa Arisu ni yuurei o mie-sase-ta.
                    ghost   see make Pst

Therefore, one might argue that emotive verbs are stative transitive
verbs. However, the deletion of the objects does not change the
grammaticality of (8) and (9). They remain ungrammatical:

(10) *Bill made Alice resemble ∅.

   *Biru wa Arisu o/ni ∅ ni-sase-ta.

(11) Bill made Alice see. Ø.

   `Biru wa Arisu o/ni Ø mie-sase-ta.

Thus, it is quite obvious that emotive verbs behave differently from
stative transitive verbs, too.

   Third, every sentence with an emotive verb is paraphrased by
a sentence with a <u>because</u> or <u>node</u> clause as in (12).

(12) a. Alice was$\left\{\begin{matrix}\text{pleased}\\\text{happy}\end{matrix}\right\}$that [she was popular with boys]$_S$.

         Arisu wa [zibun ga otokonoko ni moteru]$_S$ koto o yorokonda.

      b. Because [she was popular with boys]$_S$, Alice was$\left\{\begin{matrix}\text{pleased}\\\text{happy}\end{matrix}\right\}$

         [Zibun ga otokonoko ni moteru]$_S$ node, Arisu wa yorokonda.
                                          because

Note that the surface complement of <u>pleased</u>, <u>happy</u> and <u>yorokobu</u> and
the clause introduced by <u>because</u> or <u>node</u> in (12) are identical. This
is very significant, for this kind of meaning relation does not hold
in the case of transitive verbs. For example (13.a) is not paraphrased
by (13.b).

(13) a. Alice was$\left\{\begin{matrix}\text{convinced}\\\text{certain}\end{matrix}\right\}$that [she was popular with boys]$_S$.

         Arisu wa [zibun ga otokonoko ni moteru] koto o kakusinsita.

      b. *Because [she was popular with boys]$_S$, Alice was$\left\{\begin{matrix}\text{convinced}\\\text{certain}\end{matrix}\right\}$

         *[Zibun ga otokonoko ni moteru]$_S$ node, Arisu wa kakusinsita.

   Fourth, consider (12.a) and (12.b) again. Notice that in (12.b)
emotive verbs lack their objects. If it is true that they are in-
herently transitive, then why do <u>pleased</u>, <u>happy</u> and <u>yorokobu</u> have no
objects in (12.b)? There must be a convincing account of what has
happened to their objects. The crucial point here is that the cause
of emotion is statable either in the form of the direct object of
emotive verbs or in the form of a <u>because</u> clause as in (12.a) and
(12.b).

   Fifth, note that sentences with emotive verbs such as (14.a)
are paraphrased by causative constructions whose subjects are identical
to the surface objects of the emotive verbs. Consider:

(14) a. Alice was$\left\{\begin{matrix}\text{pleased}\\\text{happy}\end{matrix}\right\}$that [she was popular with boys]$_S$.

         Arisu wa [zibun ga otokonoko ni moteru]$_S$ koto o yorokonda.

b.   That [she was popular with boys]$_S$ {pleased Alice / made Alice happy}.

[Zibun ga otokonoko ni moteru]$_S$ koto ga Arisu o yorokob-
sase-ta.

This is not the case with transitive verbs. For example, (15.a) is
not paraphrased by (15.b).

(15) a.   Alice was {convinced / certain} that [she was popular with boys]$_S$.

Arisu wa [zibun ga otokonoko ni moteru]$_S$ koto o kakusinsita.

    b. *That [she was popular with boys] {convinced Alice / made Alice certain}.

*[Zibun ga otokonoko ni moteru] koto ga Arisu o kakusins-
sase-ta.

So far I have shown that emotive verbs behave quite differently
from ordinary transitive verbs in a number of significant ways. I
would like to claim, therefore, that emotive verbs are derived transitive
verbs, i.e. that their sentential objects do not originate as their
objects on the deeper level. Naturally a question arises: where have
their objects come from? Consider the sentences in (16). In spite
of the differences in their surface structures, they are essential
paraphrases of each other.

(16) a.   Alice was {pleased / happy} that [she was popular with boys]$_S$.

Arisu wa [zibun ga otokonoko ni moteru]$_S$ koto o yorokonda.

    b.   That [she was popular with boys] {pleased Alice. / made Alice happy}.

[Zibun ga otokonoko ni moteru] koto ga Arisu o
yorokob-sase-ta.

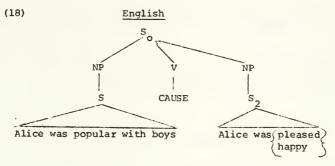   c.   Because [she was popular with boys]$_S$, Alice was {pleased. / happy}

[Zibun ga otokonoko ni moteru]$_S$ node, Arisu wa yorokonda.

I have already pointed out that the surface complement of emotive
verbs in (16.a), she was popular with boys or zibun ga otokonoko ni
moteru, is the surface subject of (16.b). Moreover, it is identical
with the clause introduced by because or followed by node in (16.c).
Also, notice that it is in complementary distribution in (16.a) and
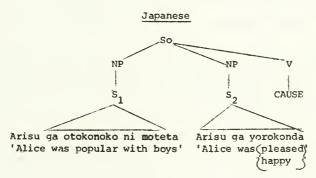(16.c). (17) is ungrammatical.

(17) *Because [she was popular with boys]$_S$, Alice was {pleased, / happy}
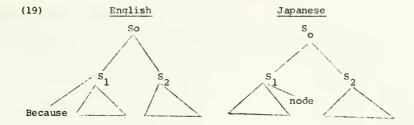
that [she was popular with boys]$_S$.

*[Zibun ga otokonoko ni moteru]$_S$ node, Arisu wa [zibun ga
otokonoko ni moteru]$_S$ koto o ycrokonda.

I maintain that adequate grammars of both English and Japanese
will have to explain the above facts on a principled bases. I would
like to propose that (16.a), (16.b) and (16.c) share the same deep
structure which is a causative construction. It will be roughly as in
a tree like (18).

(18)   English

                    Japanese

I maintain that an abstract verb CAUSE relates two states of affairs
in such a way that because of the first state of affairs the second
state of affairs comes about. If Verb-Raising takes place in (18),
then we get (16.b). I propose that both English and Japanese have
two trans. rmations; Causal Object Formation and Because Formation.
Causal Object Formation takes the first argument of an abstract verb
CAUSE and makes it a derived object of emotive verbs as in (16.a).
Because Formation changes the tree configurations of (18) into some-
thing like the following:

(19)   English   Japanese

This operation yields (16.c). In passing, I would: like to point out
that every causative sentence is paraphrased by a because sentence.
Take the example of (20).

    (20) a. Alice broke her mother's heart by marrying a Japanese.

        Arisu wa, Nihon-jin to kekkonsite, hahaoya o hitan ni
                Japanese with marrying   mother   broken-hearted

        kure-sase-ta.
        make Pst

    ·b. Because Alice married a Japanese, her mother became
        heart-broken.

        Arisu ga Nihon-jin to kekkonsita node, hahaoya ga hitan
        ni kureta.

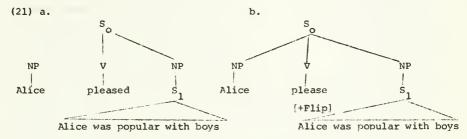Thus, Because Formation is not confined to Emotive causative construct-
ions.

      Notice that our analyses can explain why sentential objects are
in complementary distribution with because-clauses in (16.a) and (16.c):
the sentential object and the because-clause come from the same
origin. Also, our analyses can explain why pleased, happy and yorokobu
in (16.b) and (16.c) do not have objects.

      A grammar has explanatory power only if it makes correct predictions
of many relations between syntactic facts and meaning which otherwise
would remain mysterious. So long as we treat emotive verbs as inherently
transitive, it will be impossible to account for several interesting
semantic-syntactic facts about English and Japanese.

2. Arguments against the Flip Analysis of Emotive Causatives in English.
      There is an analysis of English which claims that a fairly large
number of 'psychological' predicates such as please, amuse, worry, surprise,
etc. are so marked in the lexicon that they obligatorily undergo Flip,
a rule which interchanges the subject and the object. This was first

proposed by Lakoff (1965).

Notice that the Flip analysis makes entirely different claims about the properties of emotive verbs and their related constructions such as (16.a), (16.b) and (16.c). Most importantly, it claims that emotive verbs such as pleased, amused, worried, surprised, etc. are inherently transitive verbs. For example, according to the Flip analysis, (16.a) and (16.b) would have deep structures something like (21.a) and (21.b), respectively.

(21) a.   b.

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          S₀                                          S₀
         /  \                                     /    |    \
       /      \                                 /       |      \
     NP   V    NP                            NP      V       NP
      |   |     |                             |       |        |
   Alice pleased S₁                        Alice  please      S₁
         ___/_____                              [+Flip]   __/__\__
   Alice was popular with boys           Alice was popular with boys
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Notice that pleased in (21.a) has two arguments. We have already shown that there are good reasons to believe this is false. Next, the Flip analysis can relate (16.a) and (16.b) but it fails to explain why and how they are related to (16.c). In other words, it is a pure accident that sentences like (16.a) and (16.b) are always related to sentences like (16.c). Also, it fails to explain why pleased in (16.c) lacks an object.

(16) a. Alice was pleased that [she was popular with boys]$_S$.

   b. That [she was popular with boys]$_S$ pleased Alice.

   c. Because [she was popular with boys]$_S$, Alice was pleased.

Finally, notice that the Flip analysis does not decompose emotive verbs into underlying causatives. Therefore, according to this analysis, (22) and (23) are not related to each other in any linguistically significant way whatsoever. Compare:

   (22) That she was popular with boys pleased Alice.

   (23) That she was popular with boys made Alice happy.

I will argue below that verbs such as please should be analyzed as underlying causatives and that only by so doing can one capture a very significant generalization in English syntax.[3]

I will present four arguments to justify my claim. First, observe

pairs of sentences like (24) and (25).

    (24) a. Alice amused B́ill by telling him jokes.

         b. Alice amúsed Bill.

    (25) a. Bill tried to surprise Álice.

         b. Bill surpŕised Alice by being under nineteen.

The a-forms refer to an action performed by the subject of the sentence.
The b-forms, on the other hand, describe an emotional reaction to the
subject of the sentence experienced by the object of the sentence.
These examples clearly show that marking those verbs as [+ Flip] in
the lexicon does not work, for they can take both Agent and non- Agent
subjects as in a-forms and b-forms, respectively. Obviously, Flip
is not responsible for the derivation of a-forms. A possible way
out from this troublesome situation would be to hypothesize that the
English lexicon has many pairs of homophonous verbs such as $\underline{amuse}_1$.
$\underline{amuse}_2$, $\underline{surprise}_1$, $\underline{surprise}_2$, etc. and that only one member of each
pair is a Flip verb. This seems to be a plausible analysis and the
systematic difference in stress pattern in each pair also seems to
support this approach. Now, observe (26) and (27).

    (26) a. Alice amúsed$_1$ him. [əmyuzdhm]   (by telling him jokes)

         b. Alice amúsed$_2$ him. [əmyuzdm]

    (27) a. Bill surpŕised$_1$ her.

         b. Bill surpŕised$_2$ her.

Quite interestingly, when the subject of a 'Flip' verb is an Agent,
as in the a-forms, h reduction does not take place: h remains. In
b-forms, however, h is reduced. This observation is due to Arlene
Berman and Michael Szamosi (1971). Now, consider the causative
constructions like (28) and (29).

    (28) Alice made Bill happy.

    (29) Bill made Alice sad.

These sentences can be just as ambiguous as sentences like (24) and
(25), although, unfortunately, the stress difference does not show up
here. However, consider the following:

    (30) a. Alice made him happy.

         b. Alice made him happy.

    (31) a. Bill made her sad.

         b. Bill made her sad.

When the surface object is him or her, the semantic difference is
paralleled with h reduction just as it is the case with (24) and (25).
What does this imply? It simply implies that English phonology is
sensitive to semantic facts of sentences. Nobody will draw the absurd
conclusion from (30) and (31) that make in (30.a) and make in (30.b)
are different verbs or that happy in (30.a) and happy in (30.b) are
different predicates, for example. Assume, on the other hand, that the
'Flip' verbs are underlying causatives and their semantic representations
are roughly something like (32).

    (32)   amuse $\equiv$ CAUSE +   amuse

             please $\equiv$ CAUSE +   please

             surprise $\equiv$ CAUSE +   surprised

I have already maintained that an abstract verb CAUSE relates two
states of affairs in such a way that because of the first state of
affairs the second state of affairs comes about.   Then, the real
difference between $\underline{amuse}_1$ and $\underline{amuse}_2$ is simply the difference of
the nature of the first state of affairs: whether an Agent is involved
in the first state of affairs or not.   Therefore, it follows that the
difference of deep structures between a- and b-forms in (24) and (25)
is parallel to that between a- and b-forms in (30) and (31).   It is no
mystery at all to our analysis, therefore, that h reduction behaves
alike in the 'Flip' constructions and ordinary causative constructions
like (30) and (31).   Also, notice that our analysis makes the prediction
that other predicates of human emotion such as happy, unhappy, sad,
sorry, angry, etc. will behave like pleased, amused, surprised, scared,
worried, etc.   The correctness of this prediction is verified by the
following examples.   Consider (33), (34) and (35).

    (33)   Bill was pleased that Alice passed the exam.

    (34)   Bill was happy that Alice passed the exam.

    (35)   Bill was aware that Alice passed the exam.

We have already shown that only (33) and (34) are paraphrased by
because clause sentences, as illustrated by (36), (37) and (38).

    (36)   Because Alice passed the exam, Bill was pleased.

    (37)   Because Alice passed the exam, Bill was happy.

    (38) *Because Alice passed the exam, Bill was aware.

Also, we have called the reader's attention to the fact that the clause

introduced by <u>because</u> is identical to the complement of <u>pleased</u> and <u>happy</u>. Furthermore, we have already pointed out that only (33) and (34) are semantically related to a causative construction whose subject is again identical with the complement of <u>pleased</u> and <u>happy</u>.

(39) That Alice passed the exam pleased Bill.

(40) That Alice passed the exam made Bill happy.

(41) *That Alice passed the exam made Bill aware.

According to Flip analyses, (33) and (34) are not related in any linguistically significant way whatsoever. Also, notice that our analysis is in good agreement with our intuitive judgment that <u>pleased</u>, <u>surprised</u>, <u>amused</u>, etc. and <u>happy</u>, <u>sad</u>, <u>angry</u>, etc. constitute a semantically natural class of predicates which denote human emotion and whose surface object NPs denote the cause of emotion

Next, recall that we have pointed out that every causative sentence has a paraphrase with a <u>because</u> clause sentence. Likewise, every 'Flip construction appears to have a corresponding <u>because</u> clause sentence as is illustrated by (39) and (36).

Finally, Karttunen (1970) has pointed out that in affirmative assertions, the causative sentence implies that the proposition contained in the complement is true. Likewise, (42) implies the factuality of (43).

(42) Alice pleased Bill.

(43) Bill was pleased.

For the above reasons, I maintain that the Flip analysis of English verbs such as <u>please</u>, <u>amuse</u>, <u>surprise</u>, <u>worry</u>, etc. is too superficial and fails to explain what is really going on in English syntax and that the so-called 'Flip' verbs in English should be decomposed into underlying causatives.

3. Arguments against Kuroda and Chomsky's analysis

A different proposal has been made to relate sentences like (44) and (45) by Kuroda (1965) and Chomsky (1970).

(44) Alice was pleased that [she was popular with boys]$_S$.

Arisu wa [zibun ga otokonoko ni moteru]$_S$ koto o yorokonda.

(45) That [she was popular with boys] pleased Alice.

[Zibun ga otokonoko ni moteru] koto ga Arisu o yorokob-

sase-ta.

First, I would like to discuss Kuroda's analysis. Details aside, the essential difference between the Flip approach and Kuroda's approach is the following. Kuroda also considered pairs of sentences such as (46) and (47) to be true paraphrases of each other. The examples are his.

(46) a. Ongaku ga Taroo o tanosim-sase-ta.
         music   amused make Pst

         'Music amused Taroo.'

     b. Taroo ga ongaku o tanosinda.
                   music   amused

         'Taroo was amused with music.'

(47) a. Sono koto ga Taroo o naqek-sase-ta.
         that fact   grieved make Pst

         'That fact grieved Taroo.'

     b. Taroo ga sono koto o naqeita.
                             grieved

         'Taroo was grieved at that fact.'

Instead of postulating that the b-forms are the more basic and that the a-forms are to be derived from the b-forms by a transformation, Kuroda proposed that the b-forms are embedded inside the a-forms. Therefore, the deep structures for (46.a) and (47.a) are claimed to be something like the following:

(48) Ongaku$_i$ ga [Taroo ga ongaku$_i$ o tanosinda] sase ta.

      'Music$_i$ made [Taroo was amused with music$_i$].'

(49) Sono koto$_i$ ga [Taroo ga sono koto$_i$ o nageita] sase ta.

      'That fact$_i$ made [Taroo was grieved at the fact$_i$].'

Notice that this analysis presupposes that verbs like _tanosimu_ and _nageku_ are inherently transitive. Therefore, in order to get the desired sentences from (48) and (49) it is necessary to delete the complement objects which are coreferential to the main subjects. Kuroda postulated that there is a rule called Recurrent-Object-Deletion in Japanese grammar. 'An object is deleted if it coincides with the subject.' He has correctly pointed out that 'verbs which are subject to Recurrent-Object-Deletion are very restricted. Semantically, they share a characteristic feature in that they convey the emotional state of a human being.' However, he has failed to

realize the following fact: It is only when the main subject is the
non-Agent that the complement object must coincide with this non-Agent
subject and also must be deleted.

   Recall that English Flip treatment has failed to account for
'Flip' constructions whose subjects are Agents. The same thing can be
said about the Recurrent-Object-Deletion approach. Consider (50) and
(51).

   (50)   Taroo ga (nyuugaku-siken ni itiban de ukatte) hahaoya o
                    entrance exam at top grade with passing mother

          yorokob-sase-ta.

          !Taroo pleased his mother (by passing the entrance exam with
           the top grade).'

   (51)   Taroo ga (Amerika musume to kekkon site) hahaova o kanasim-
                    American girl with marrying   sad

          sase-ta.

          'Taroo made his mother sad (by marrying an American girl).'
Notice that there are no such Japanese sentences as (52) and (53).

   (52)   *Hahaoya ga Taroo o/ni yorokonda.

          'His mother was pleased with Taroo.'

   (53)   *Hahaoya ga Taroo o/ni kanasinda.

          'His mother was sad about Taroo.'
Therefore, it will be totally implausible to say that the deep structures
for (50) and (51) are something like the following:

   (54)   Taroo$_i$ ga [*hahaoya ga Taroo$_i$ o/ni yorokonda] sase ta.
          'Taroo$_i$ made [his mother was pleased with Taroo] .'
                                                            $_i$
   (55)   Taroo$_i$ ga [*hahaoya ga Taroo$_i$ o/ni kanasinda] sase ta.
          'Taroo$_i$ made [his mother was sad about Taroo] .'
                                                        $_i$

which contain ungrammatical sentences (52) and (53) as their complement.

   It is interesting to note that Chomsky (1970) has proposed an
analysis of English emotive causatives which is exactly parallel to
Kuroda's analysis. In order to explain the meaning relationship
between (56) and (57), Chomsky proposed (58) to be a plausible deep
structure for (57). The examples are his.

   (56)   He was amused at the stories.

   (57)   The stories amused him.

   (58)   The stories$_i$ (CAUSE) (he was amused at the stories)$_i$

In place of Kuroda's Recurring-Object-Deletion, Chomsky maintained that 'the operation that erases the repeated noun phrase in the embedded proposition of (iii) (= (58)) is of a sort found elsewhere. For example, in the derivation of such sentences as John used the table to write on, ... from John used the table (John wrote on the table), and so on.' I would like to claim that there is no syntactic evidence whatever that his (iii) (= (58)) and these sentences are related by any general principle such that some explanation applies to both cases. For example, McCawley (December 1971. Personal communication) has pointed out to me that we have to keep the preposition in 'John used the table to write on' but that we have to lose it in (57). The following sentence, therefore, is ungrammatical.

    (59) *The stories amused him at.

Notice that our intransitive analysis of emotive verbs predicts that (56) cannot have the corresponding causative form unless at the stories is deleted. This is a correct prediction. Observe:

    (60) *Alice amused him at the stories.

    (61) Alice amused him Ø.

The examples of the same type follow.

    (62) *Alice pleased him with John.

    (63) *Alice made him happy about that.

    (64) *Alice made him sorry about that.

    (65) *Alice disappointed him at the news.

    (66) *Alice surprised him at that.

The above ungrammatical sentences become perfectly grammatical when their phrasal objects are deleted.

    (67) Alice pleased him.

    (68) Alice made him happy.

    (69) Alice made him sorry.

    (70) Alice disappointed him.

    (71) Alice surprised him.

Also, just as every emotive verb sentence with a sentential object is paraphrased with a because clause sentence, we have because of paraphrases for the sentences of the above type.

    (72) Because of the stories, he was amused.

    (73) Because of the news, he was pleased.

    (74) Because of that, Alice was happy.

(75) Because of her father's death, Alice was sorry.

(76) Because of his change of mind, Alice was disappointed.

(77) Because of the unexpected result, Alice was surprised.

For the above reasons, I am quite skeptical about Chomsky's deep structure analysis for (57). I believe the phrase <u>at the stories</u> does not originate in the embedded sentence as in (58) and that it has been extraposed by the Causal Object Formation rule from the underlying subject position of the abstract verb <u>CAUSE</u>.

From the above analysis, it follows that the so-called English pseudo-passives are different from true passives in that Causal Object Formation has yielded the former but Passivization yielded the latter. More precisely, the latter are claimed to be causative passives by our analysis. This explains why the subject of the pseudo-passives is always non-Agent and therefore the predicate is stative. Observe:

(78) He was very amused at the stories.

(79) He was very pleased with the news.

(80) Alice was very disappointed at the result.

(81) Alice was very worried about it.

The same predicates can take the sentential objects.

(82) He was very amused that the stories were so unusual.

(83) He was very pleased that the news was better than he expected.

(84) Alice was very disappointed that Bill married another girl.

(85) Alice was very worried that her son might flunk.

We have already demonstrated in Section 1 that their sentential objects have been derived from the sentential subjects of the underlying causative construction by Causal Object Formation.

Footnotes

[1]This paper is an adaptation of part of Chapter IV of Akatsuka
(1972), Some Aspects of Japanese Reflexivization. I am very
grateful to James D. McCawley for suggesting various improvements
in this paper.

[2]English stative transitive verbs may occur in non-Agentive
causative constructions, as illustrated by the following example.

(i) Biological inheritance makes sons resemble their mothers.

[3]In this paper, I will have nothing to say about other verbs for
which the Flip analysis has been proposed, such as seem, appear,
etc.

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