On the Interpretation of Subject

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I. Introduction

This paper attempts to explore the position and the interpretation of subject. I will argue that all subjects are base-generated inside VP and raised to the VP-external position regardless of verb types, refuting Kratzer's (1989) and Diesing's (1990, 1992) proposals. It will be suggested that the difference between individual-level and stage-level predicates, especially in terms of subject interpretation, reduces to a contrast between the predicates compatible with tense and those incompatible with tense, and the contrast follows from the nature of reconstruction and type shifting constraints: variables are lifted to the quantificational type when they cannot find a binder. Furthermore, this line of approach will be shown to account for why small clauses and nominals do not show the individual-level and stage-level contrast with regard to the interpretation of subject.

II. Problems concerning Subject Position and Interpretation

Recently quite a number of linguists argue or assume that subject is generated inside VP. Kratzer (1989) slightly modifies this analysis and proposes on syntactic and semantic grounds that only the subject of the stage-level predicate is base-generated in the SPEC of VP, whereas that of the individual-level predicate is generated outside VP. One of the major motivations for the proposal comes from the contrast in interpretation between (1a) and (2a).

(1)   a. Firemen are available.
        b. Ex, e [firemen(x) & available(x, e)]
        c. Gx, e [firemen(x) & be(x, e)] [available(x, e)]
        d. Ge [here(e)] Ex [firemen(x) & available(x, e)]
(2)   a. Firemen are altruistic.
        b. Gx [firemen(x)] [altruistic(x)]

The sentence with the stage-level predicate like (1a) is at least three ways ambiguous, as represented by (1b)-(1d). (1b) represents the existential reading of *firemen*; there are firemen available at some place in time. (1c) is the generic reading of the subject, paraphrased as 'the firemen has the

property that they are generally available. (1d) is the generic reading of a spatio-temporal location, meaning that generally there are firemen available. On the other hand, such a sentence with the individual-level predicate as (2a) does not receive an existential reading, allowing only a generic reading.

Kratzer argues that this contrast can be explained, given that only the stage-level predicate allows a VP-internal subject. Her argument is on the basis of Diesing's (1988, 1990) Mapping hypothesis.

(3) Mapping Hypothesis
Material from VP is mapped into the Nuclear Scope and material from IP is mapped into the Restrictive Clause.

To put the hypothesis differently, variables inside VP receive a weak or an existential reading, whereas variables outside VP get a strong or a quantificational reading. Diesing follows Kamp-Heim analysis, according to which bare plurals and indefinite DPs are variables. Thus it can be accounted for why (2) cannot have an existential reading. Since *intelligent* is individual-level, *firemen* in (2) is generated outside VP and thus cannot receive an existential reading, provided that (3) is correct. This line of approach is consistent with the following phenomena noted by Milsark (1974).

(4)   a. Someone is intelligent.
       a'. * Sm one is intelligent
       b. Someone is sick.
       b'. Sm one is sick.

Someone is ambiguous between a strong and a weak reading. In (4) the strong and the weak reading are represented as 'someone' and 'sm one' respectively. Milsark points out that only a strong reading is available when the predicate is a property predicate, that is, individual-level. As a result (4a') is not acceptable. On the other hand, the state-descriptive or stage-level predicate permits its subject to be either strong or weak as illustrated by (4b) and (4b'). This puzzle can be resolved along the line of Kratzer's proposal: the subject of individual-level predicate must be base-generated outside VP and the VP-external element must be mapped into restrictive clause, receiving a strong reading.

Contrary to Kratzer, however, Bonet (1989) proposes that all subjects are generated VP-internally irrespective of verb types on the ground that floated quantifier constructions do not show a different behavior with respect to the individual-level and stage-level distinction. She follows Sportiche's (1988) analysis according to which (floating) quantifiers appear

in the NP-initial position and quantifiers are floated when the NP alone moves

(5) The children$_i$ are [all t$_i$ happy]

In (5) *the children* alone rises to (SPEC, IP) in order to get Case and quantifiers are left inside VP. Given that Sportiche is correct, (6b) must not be the D-Structure of (6a), because it cannot produce the target sentence (6a)

(6) a. The clowns are all fat.
    b. [$_{IP}$ all$_i$ the clowns$_i$ [$_{VP}$ are fat]
           I_____I
    c. [$_{IP}$ are [$_{VP}$ all$_i$ the clowns$_i$ fat]
           I_____I

Thus Bonet concludes that the D-structure of (6a) must be like (6c), where even the subject of the individual-level predicate like *fat* is generated inside VP.

In an attempt to account for the data presented by Bonet while assuming that Kratzer's approach is basically on the right track, Diesing admits that there is relationship between the two subject positions, that is, (Spec of IP) and (Spec of VP), and proposes that individual-level predicates and stage-level predicates differ in that stage-level predicates have the kind of INFL with the property of raising predicates and individual-predicates are associated with the INFL which is like control predicates.

(7) a. [$_{IP}$ Si   [$_{I'}$ INFL [$_{VP}$ ti   [$_{V'}$ V ...
         I_____I
        NP-Movement

    b. [$_{IP}$ Spec [$_{I'}$ INFL [$_{VP}$ PRO [$_{V'}$ V ...
         I_____I
         Control

(7a) illustrates the SS of the stage-level predicate. The subject is base-generated in (Spec, VP) and moves to (Spec, IP) to get Case. This is quite similar to the structure of the raising construction. This structure gives a correct interpretation. According to the Mapping Hypothesis (3), the subject in the Spec of IP receives a generic interpretation and the NP-trace of the subject inside VP gives an existential interpretation.

The SS of the individual-level predicate is represented by (7b). In (7b) the lexical NP in (Spec, IP) is assigned a thematic role by INFL and controls

PRO in (Spec. VP) which is independently assigned a thematic role from the predicate. The INFL of the individual-level predicate is analogous to the control predicate. This structure also correctly gives only the generic reading, for PRO is not counted in the mapping to LF, as illustrated by (8).

(8) A unicorn is anxious [PRO to damage the walls]

In the control structure such as (8) the subject can only have scope over the matrix predicate although the predicate c-commands PRO. This implies that PRO is not interpreted at LF. Thus (9a), represented as (9b) at SS, gets only a generic reading like (9c).

(9) a. Linguists know French.
     b. [IP Linguists [VP PRO know French]]
     c. Gx [x is a linguist] [x knows French]

(9a) cannot receive an existential reading, since the subject of an individual-level predicate is base-generated in (Spec. IP) and PRO is an inert element in the mapping to LF.
On the other hand, PRO is capable of licensing the floating quantifier, as instantiated by (10).

(10) a. The linguists promised to all leave.
     b. The linguists promised all to leave.

Sportiche (1988) notes that the grammaticality of (10) is due to the fact that quantifiers can appear next to PRO. Given (7b), it does not come as a surprise that even the individual-level predicate has a VP-internal floating quantifier.
However, Diesing's argument is unwarranted, for even the individual-level predicate gives rise to ambiguity in case they occur with the past tense.

(11) a. John was French.
     b. John was [PRO French]

(11a) is ambiguous between a generic reading and an existential reading. This runs counter to Diesing's proposal; given that Diesing is correct, the D-structure of (11a) is something like (11b), which does not give an existential reading. This phenomena suggest that tense is a relevant factor in the LF mapping. In fact, there is no difference between individual-level predicates and stage-level predicates in the construction in which tense cannot appear. Let us look at the small clause (12), where no overt tense appears.

(12) a. I saw [someone naked]
     b. I consider [someone intelligent]

Only the stage-level predicate can appear in the small clause selected by the perceptual verb like *see*, whereas only the individual-level predicate occurs in the small clause licensed by such verbs as *consider*. Interestingly, the subjects in both types of small clauses are specific, that is, quantificational. (12) implies that tense plays a critical role in the interpretation of subject. In the next section I will investigate the role of tense with respect to the interpretation of subject, accounting for the problems concerning the interpretation of subject.

III. Constraints on the Interpretation of Subject

Kratzer (1989) argues that individual-level predicates do not have an event argument. However, Higginbotham (1983, 1992) proposes that every predicate contains a E-position. I suggest that all predicates have an event argument and so have a VP-internal subject, and the difference between individual-level predicates and stage-level predicates lies in the fact that the former type of predicates have a generically quantified event. The event argument is distinguished from other arguments in that it is not satisfied by an explicit argument but by being bound. Higginbotham argues that in the absence of adverbial quantifiers, the event argument is existentially quantified by default. But we can claim that the event argument is quantified by tense, since the event argument is an argument for spatio-temporal location. This claim leads us to argue that the individual-level predicates, with an event argument generically quantified, do not require tense.

III.1 Structural Constraints on Type Shifting

This line of approach can straightforwardly account for why the floated quantifier construction does not show a contrast with respect to the stage-level and individual-level distinction. Since the subject of both types of predicates are generated in (Spec, VP) at D-S and the element excluding the quantifier rises to (Spec, IP), we have no difficulty explaining why there is no difference between stage-level and individual-level predicates with regard to floating quantifiers.

We are yet to account for other semantic phenomena raised by (1), (2) and (4): Why the subject of the stage-level predicate is ambiguous between a quantificational reading and an existential reading, while that of the individual-level predicate receives only a quantificational reading? Now

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that we assume all verbs allow a VP-internal subject. (1) and (2) would be represented as (13a) and (13b) respectively.

(13) a. Firemen are [t intelligent]
     b. Firemen are [t available]

The problem is how we can deal with the contrast between the individual-level predicate and the stage-level predicate, assuming that both types of verbs have a VP-internal subject. Consider (13a). The present form of *be* is ambiguous between the present reading and tenseless reading. But the present reading is not compatible with an individual-level predicate, as illustrated by the ungrammaticality of *firemen are intelligent now*.[1] I argued that tense is a binder for the event. Since tense provides a spatio-temporal location for an event, we can say that it also binds the arguments involved in the event if they are variables. In other words the so-called default existential quantification is possible only when tense or other binder appears. Now that tense is not available as a quantifier, *firemen* cannot be quantified whether it remains at the VP-external position or is lowered into the VP-internal position. If (13a) is an expression of an artificial language, this is an ill-formed formula. However, natural language is quite flexible and makes use of the type shifting rule, when the variables cannot find their binder. If there is no binder available, the variables like bare plurals undergo type shifting to quantificational, that is, generic reading.[2] That is why *firemen* in (13a) has a generic reading. To summarize, the type shifting comes into play when variables fail to find a quantifier to bind them regardless of the fact that the variables are outside VP or not.

It is not difficult to find a mechanism which allows flexibility to natural language like type shifting rules. Presupposition accommodation proposed by Lewis (1979) is one of them.

(14) a. Cats fall on feet.
     b. Cats drop to the ground.

The proper interpretation of (14a) is something like 'when cats drop to the ground, they usually fall on feet'. In other words, in order to properly interpret (14a) we must presuppose (14b). Without such presupposition, we need to accommodate it. That is what Lewis calls presupposition accommodation. Presupposition accommodation and type shifting are of similar sort in that they are mechanisms to bridge the gap between the syntactic structure and interpretation.

Now let us consider (13b). Reconstruction turns (15a) into (15b).[3] The tense is compatible with stage-level predicates. So in case the raised subject downgrades into VP-internal position, it is under the scope of tense, which

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binds the lowered subject if it is a variable. That is why the subject of stage-level predicates get an existential reading.

(15) a firemen are   [t available]
                  1_____1
     b. pres [firemen available]
     c. Ex, e [firemen(x) & available(x, e)]

In case the subject is in the SPEC of IP, it is not under the scope of tense, so that it must undergo type shifting, getting a quantificational reading like (1c), repeated as (16).

(16) Gx, e [firemen(x) & be(x, e)] [available(x, e)]

On the other hand, (16b) may receive the reading (1d), rewritten here as (17).

(17) Ge [here(e)] Ex [firemen(x) & available(x,e)]

It is usually assumed that a place-denoting argument is a predicate of event, so that we can easily accommodate an implicit argument denoting a place when the predicate is stage-level.

(18) a. Implicit place-denoting argument   firemen$_i$ [t$_i$ available]
                 1_____1
     b. Implicit place-denoting argument   [firemen available]

As illustrated by (18), VP may be licensed by being predicated of the implicit location-denoting argument and *firemen* may downgrade into its trace position. (18b) gives the reading (17), where the implicit place-denoting argument has a quantificational reading. This line of approach straightforwardly applies to (4).

III.2 Preference Principles for Reconstruction

Let us consider the following pair.

(19) a. Everyone$_i$'s seeming t$_i$ to leave was surprising.
     b. Everyone$_i$ seems t$_i$ to leave.

(19a) has only the interpretation that *everyone* is wider than *seem* in scope. while (19b) is ambiguous concerning the relative scope of *everyone* and *seem*. *Everyone* in (19a) as well as in (19b) must have been raised

from the c-domain of *seem*. What is mysterious is that in (19a) *everyone* is outside scope of *seem*. Restructuring maps (19a) and (19b) into (20a) and (20b) respectively.

(20) a.   seeming everyone to leave was surprising.
b.   pres seem everyone to leave.

(20b) is well-formed because the event (or state) argument of *seem* is bound by the present tense. On the other hand the gerundival affix cannot play the role of tense so that the event of *seem* in (20a) is left unbound. Chomsky (1992) proposes the so-called preference principle: reconstruction can be applied when it does not lead to violation of any condition. Now that downgrading of *everyone* produces an ill-formed formula, *everyone* cannot be downgraded, taking scope wider than *seem*.

Now we are in a position to explain why there is no contrast between individual-level predicates and stage-level predicates when there is no tense. Let us assume that the subject of the small clause is inside VP or AP and rises for Case, leaving behind a trace, as in (21).

(21) a. I saw [$_{XP}$ someone$_i$ [t$_i$ cross the street]]
b. I consider [$_{XP}$ someone$_i$ [t$_i$ intelligent]]

Let us first consider (21a). Sine there is no tense in the small clause, the indefinite event in (21a) cannot be bound except the raised subject. Then the raised argument cannot be restructured into its trace position, now that it is a binder for the event and lowering of the subcategorized element leaves the small clause unbound. Consequently the raised subject must remain in the external position, and cannot find a binder in its extended projection, undergoing type shifting. [4] It is straightforward why *someone* in (21b) is specific. Since there is no tense in the extended projection of the small clause, *someone* cannot find a binder within its extended projection, and is lifted to the quantificational type.

IV. Event Nominals

Now let us turn to event nominals. The event or state denoting nominal is different from the event or state denoting sentence in that the prenominal argument of the event nominal must be quantificational unlike the subject of the event denoting sentence.

(22) a. A teacher$_i$'s [$_{NP}$ t$_i$ examination of the papers]
b. A teacher$_i$ [$_{VP}$ t$_i$ examined the papers]

A teacher in (22a) must be specific but the one in (22b) is ambiguous between a specific and a non-specific reading. This contrast seems to arise from the fact that there is no tense in the nominal construction, while it can appear in the verbal construction. The event nominal *examination* denotes an indefinite event, and the indefinite event must be bound by the raised argument, since there is no tense. Then the raised argument cannot be lowered at LF, for it violates a condition on LF.

(23) * [a teacher's examination of the papers]

(23) is not well-formed, for the indefinite event is not bound. Thus *a teacher* in (22a) must remain outside NP and receives a quantificational reading. In contrast, lowering of *a teacher* in (22b) produces a well-formed formula (24), because the tense can license the indefinite event denoted by VP.

(24) past [a teacher examined the papers]

Accordingly *a teacher* in (24) may have an existential reading. To recapitulate, the contrast in subject reading between the event nominals and the event denoting sentences provides further support to the argument that tense plays a critical role in reconstructing the raised subject.

The other difference between nominal constructions and verbal constructions lies in the fact that nominal expressions are more restricted than verbal constructions with regard to the thematic roles of subject.

(25) a. Mary amused audience. (Agent, Experiencer)
     b. Mary's amusement of audience (Agent, Experiencer)
(26) a. The movie amused audience. (Theme, Experiencer)
     b. * The movie's amusement of audience (Theme, Experiencer)

Mary in (25) is usually thought of as Agent and *the movie* in (26) as Theme. (25) and (26) show that verbal constructions allow Theme to be subject but nominal constructions do not. This phenomenon suggests that not every thematic role can be a binder for an indefinite event/state.

Now let us consider which theta roles can play as a binder. It seems that only Agent can be a binder in case the predicate denotes event, and either Theme or Experiencer can be a candidate for a binder when the predicate denotes state. The prenominal argument must have the function of specifying or identifying an event or a state, just as determiners in the SPEC of NP do. If we say 'John's event', we usually refer to the event in which *John* participates as Agent. So we expect that only Agent can appear in the prenominal position for event nominals. On the other hand, 'John's state'

refers to the state which *John* experiences or undergoes. This leads us to argue that either Experiencer or Theme can play as a binder. This argument is supported by event/state nominal constructions and some verbal constructions.

Now let us first look at the relation between event and Agent. (25) and (26) show that not only Agent but also Theme occupy the SPEC of IP but only Agent cannot appear in the SPEC of DP. This disparity comes from the fact that the argument in (SPEC, IP) do not have to play the role of binder for the event, since tense does, but there is no tense in DP so that the argument in (SPEC, DP) must play as a binder for the event, identifying the event. Middle constructions corroborate the argument that event and Agent are closely related. Middle constructions do not denote event even if their corresponding active verbs denote events. What is interesting is that Agent cannot appear in the middle construction.

Now let us turn to state. It is quite clear that Experiencer can be a binder for state, as evidenced by (27).

(27) John's love of Mary (Experiencer, Theme)

Let us look at the possibility that Theme can be a binder for state.5 Williams (1981) points out that adjectival passives take only Theme as their subject, whereas verbal passives have no such restriction on the subject.

(28) Adjectival:
    a. The rules are ungiven. (Theme is subject of *given*)
    a'. * We are ungiven. (Goal is subject of *given*)
    b. How firmly promised are these things! (Theme is subject of
        promised)
    b'. * How firmly promised were those people! (Goal is subject of
        promised)
    Verbal:
    c. The first prize was given to Mary. (Theme is subject)
    c'. Mary was given the first prize. (Goal is subject)
    d. These books were promised to these people. (Theme is subject)
    d' Those people were promised these books. (Goal is subject)

The adjectival passive is different from the verbal passive in that it denotes state which is not temporary. To put it differently, the adjectival passive is an individual-level predicate, which is not compatible with tense. So the subject in the adjectival passive plays as a binder for state. Consequently it does not not come as a surprise that only Theme can be subject for the adjectival passive.

This line of account is supported by Fellbaum's (1987) observation that only accomplishment nominals allow preposing.

(29) a. the city's destruction
     b.* gratitude's expression

Accomplishment composes of event and its result, that is, state. Thus the accomplishment nominal *destruction* denotes state as well as event. Since Theme can be a binder for the state, (29a) is good. In contrast, (29b) is not, for *expression* is not an accomplishment verb and denotes only event, which cannot be bound by Theme.

This proposal sheds a light on the difference between *give* and *donation*. Compare (30a) and (30b). What is mysterious is that Theme of *donation* may be preposed in the nominal construction, while Theme of *gift* may not.

(30) a. * Books' gift to the library.
     b. Books' donation to the library.

The contrast in nominal constructions seems to reflect that of verbal constructions. As illustrated by (31) and (32), *give* allows internal dative whereas *donate* does not.

(31) a. John gave Mary $100.
     b. John gave $100 to Mary.
(32) a. John donated $100 to Mary.
     b. *John donated Mary $100.

Anna Wierzbicka (1988) argues that (31a) and (31b) differ in their interpretations: The internal dative constructions like (31a) guarantee that *Mary* now has $100 as a result of John's giving but such external dative constructions as (31b) do not give such guarantee. In other words only internal dative constructions like (31a) denote not only event but also its result, that is, state. Since (30a) is not an internal dative construction, it does not denote state and fails to have a preposed Theme. On the other hand, Anna Wierzbicka suggests that in case of *donate*, the external dative construction like (32a) exceptionally denotes the accomplishment reading, blocking the internal dative construction like (32b), which typically gives an accomplishment reading. That is, the external dative construction of *donate* gives not only an event but also a state reading, and the nominal construction in (30b) is an external dative construction, permitting the preposed Theme.

Korean event nominals provide further support to this proposal. Let us consider (33).

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(33) a. tosi-uy   pakoy 'destruction of the city'
         city-poss destruction
         sekyu-uy sopi 'consumption of oil'
         oil-poss   consumption
         say   nala-uy   kensel 'construction of new country'
         new   country-poss construction
         ku   chayk-uy penyek 'translation of the book'
         the book-poss translation
    b. * suhak-uy   kongpu 'study of mathematics'
         mathematics-poss study
       * Yenghi-uy   salang 'love of Yenghi'
         Yenghi-poss   love

Some event nominals allows Theme to be in the prenominal position, as shown by (33a). But some event nominals, as illustrated by (33b), are ungrammatical, if the possessive prenominal arguments are understood as Theme. There are two types of light verbs which can be attached to the event nominals. One is 'hata', which means 'do' and conveys the active meaning. The other is 'toyta', which can be translated as 'become' and conveys passive meaning. Some event nominals can be compatible with both 'hata' and 'toyta'. But some event nominals can occur only with 'hata'. We may argue that event nominals can combine with 'toyta' only when they denote not only event but also its resultative state. In other words, only accomplishment event nominals form a constituent with 'toyta'. Interestingly enough, the event nominals in (33a) can be compatible with 'toyta' whereas the event nominals in (33b) cannot.

(34) a. Tosi-ka   pakoytoyessta. 'The city was destroyed'
         city-nom destroyed
     b. Sekyu-ka sopitoyessta. 'Oil was consumed'
         oil-nom   consumed
     c. say nala-ka   kenseltoyessta. 'New country was constructed'
         new country-nom   constructed
     d. Ku chayk-i   penyentoyessta. 'the book was translated'
         the book-nom translated
(35) a. * Yenghi-ka salangtoyessta. 'Yenghi was loved'
          Yenghi-nom loved
     b. * Swuhak-i   kongputoyessta. 'Mathematics was studied.'
          mathematics-nom studied

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This phenomena support the account that Theme can appear in the prenominal position of event nominals with the accomplishment reading, because event nominals composes of event and its resultative state.

V. Concluding Remarks

Now it remains to account for why the contrast between individual-level predicates and stage-level predicates disappears when past tense shows up, as illustrated by(11), repeated here as (36a). Let us compare (36a) with (36b).

(36) a. John was French.
b. John is French.

Both (36a) and (36b) may receive an individual-level interpretation, but only (36a) may have a stage-level reading. As mentioned in the footnote (1), the present tense and the past tense seem to differ in that the past tense can be compatible with the individual-level predicates whereas the present tense cannot. We might argue that this difference comes from the fact that the past tense might change the individual-level predicate into the stage-level predicate while the present tense cannot. That is, since the present tense cannot change the individual-level predicate into stage-level, it cannot be compatible with the individual-level predicate and only generic reading of the present form occurs with the individual-level predicate. Furthermore, we may argue that the ambiguity of (36a) is due to the fact that the stage-level predicates produces ambiguity. This proposal provides a straightforward account for the contrast between (36a) and (36b). But we are still left with the problem: why the past tense can change the individual-level predicate into stage-level while the present tense does not. Past tense can be defined only relative to present. And the sentence with past tense sometimes implies that it holds only for the past, not for the present. Thus it implies change of property, diverting the individual-level predicate into the stage-level predicate.

To summarize, tense can bind variables under its scope. But individual-level predicates cannot be compatible with present tense. Accordingly their subjects fail to find their binder. In this context the subject is lifted to quantificational type. In case the event argument is bound by tense and so subject may be reconstructed into the SPEC of VP, subject as well as the event argument receives an existential reading. Since only stage-level VP can be bound by tense, only the subject of a stage-level predicate may be downgraded into SPEC of VP, receiving an existential reading if it is a variable. If the event argument cannot be bound by tense as in the case of perceptual report constructions or event nominals, the reconstruction of

subject is prohibited according to the preference principle and consequently
subject cannot find its binder, undergoing type shifting.

Notes

1. As we have seen, individual-level predicates cannot be compatible with
the present tense. This is not surprising, since generic properties should not
be changed in accordance with time. However, Emmon Bach pointed out at
the conference that they can be compatible with the past tense.

    (i) John was intelligent when young.

The adverbial phrase denoting the past *when young* suggests that the
individual-level predicate is compatible with the past tense. Of course (i)
may have both individual-level and stage-level readings. It seems that the
individual and stage-level distinction disappears when there appears past
tense. In the final section of this paper, I attempts to account for the
difference between the present and past tense.

2. Montague (1970) uniformly treats NPs as quantificational NPs, and the
inadequacy of the approach was pointed out by Williams (1983). In an
attempt to resolve this problem, Partee (1987) suggests that each category
corresponds to a family of types, making use of the type shifting principles
proposed by Partee and Rooth (1983). According to Partee and Rooth
(1983), each basic expression is lexically assigned the simplest type and
there are general type lifting rules that provide additional higher type
meanings for expressions.

3. Chomsky (1992) argues that reconstruction holds only for A'-chain
containing variables, not for A-chains, on the ground that *he* can take *John*
as antecedent in (i).

    (i) The claim that John was asleep seems to him [t to be correct]

John could not be the antecedent of *him* if the subject phrase would be
downgraded into its trace position, as shown by "I seem to him [to like
John]", where *him* cannot take *John* as antecedent. This leads Chomsky to
argue that A-chains do not undergo reconstruction.
    However, the scope phenomena concerning the relative scope of subject
and seems compels us to admit that reconstruction holds for A-chains as
well. (i) is ambiguous with respect to the relative scope of the claim-phrase
and seems. This ambiguity does not seem to be accounted for unless we

assume reconstruction. In other words the scope ambiguity suggests that reconstruction is optional for A-chain.

4. The extended maximal projection of N is DP and that of V is IP. In (21) the extended maximal projection is XP. For detailed discussion, see Grimshaw (1991).

5. A possible counterexample against this proposal comes from the so-called experiencer verb.

   (i) Mary's love

Given that Theme can be a binder for state, (i) must allow the interpretation according to which *Mary* is Theme. But that reading is not available. We may argue that event structure of the nominal *love* is not complex like the accomplishment nominal and does not denote the state of being loved, giving only an active reading. So Theme cannot be a specifier for the experiencer verbs like *love*.

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