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#### 1 Introduction

This paper examines some of the semantic properties of sentences involving the stupid-type of adjectives. The easy-type of adjectives seems to have received much attention since the tough construction became a central issue in the 60's. Although the stupid type shares an interesting semantic property with the easy type (e.g., both types mean an evaluation on something/somebody), it is often reported that its behavior with respect to the type of the infinitive clause and the possibility of It subject crucially differs (cf. Yasui et al. (1976)). As an example consider below:

- (1) a. Johni is easy to please ei
  - b. It is easy to please John.
- (2) a. \*Johni is stupid to talk to ei.
  - b. \*It is stupid to talk to John.

(e stands for an empty category and i for coreferential relationship)

A pair of sentences given in (1) are regarded as a typical tough alternation and it is generally said that the adjective easy enters into the class of adjectives which allows this alternation. The adjective stupid, however, does not allow either of the sentences, which means that the adjective does not allow the tough alternation. Thus, the typical observation on the basis of these sentences is that the easy type and the stupid type belong to distinct classes, the former permitting the tough alternation and the other not. Moreover, the stupid type, not the easy type, undergoes another type of alternation as illustrated below in (3)-(4):

- (3) a. \*John is easy to say such a thing.
  - b. \*It is easy of John to say such a thing.
- (4) a. John is stupid to say such a thing.
  - b. It is stupid of John to say such a thing.

As to these paradigm, the *easy* and *stupid* types comletely differ from each other (i.e., constitute a complementary distribution). Therefore, a general description made by some linguists on the relationship between the two types of adjectives and the superficial phenomena given above is like the following:

- (5) a. The *easy*-type of adjectives and the *stupid*-type adjectives are distinct types; that is, there is no crucial properties shared by two types which are responsible for the above behavior.
  - b. The easy-type of adjectives undergoes the tough alternation (i.e., (1a-b)) and rejects the alternation as in (3a-b). The stupid-type adjectives,

on the other hand, rejects the *tough* alternation (i.e., (1a-b)) and undergoes the alternation as in (3a-b).

In this paper, I will not be committal on the theoretical issue of this construction, but I would like to place much focus on some descriptive issues of this construction. Specifically, the occurrence of the two types of the infinitives (as in (1a) and (1b)) and its relationship with the semantics of the sentence will be mainly discussed. What I would like to claim is that, although the *stupid*-type and the *easy*-type superficially have nothing in common as we observed in (1)-(2), the two types share some of the important properties; concretely, (i) the stupid-type has two meanings according to its argument structure, which we can regard as an ambiguity between Individual-level and Stage-level predicates in the sense of Kratzer (1988); (ii) even the *stupid*-type can appear with an infinitive with an object gap if the semantics is plausible; and (iii) the two types of adjectives are not very different, contrary to the traditional classification of adjectives. Admitting that the status of the subject and the form and possibility of the *It* construction is very important issues, I would like to concentrate on the issue of the semantics of the adjective and put aside these issues because of the paper limitation.

The organization of this paper is as follows: in section 2 we would like to consider the condition where the occurrence of the infinitive with an object gap is possible. The easy, necessary and other types of adjectives will be compared. In section 3 the Individual Stage distinction is introduced and I would like to demonstrate that the stupid type precisely follows this distinction.

# 2 On the Occurrence of the Infinitive with an Object Gap

First of all, I would like to consider what is the condition under which the infinitive with an object gap control occurs. As an typical example let us examine the easy adjective:

(6) John is easy to please e.This book is easy to read e.This chair is comfortable to sit on e.

The tough construction in general expresses an inherent property of the subject NP; these adjectives can be regarded as individual predicates in the sense of Kratzer (1988). Thus, we can hypothize a condition that the infinitive with an object gap must appear in a sentence which expresses an inherent property of the subject.

In order to prove that this hypothesis is plausible, we have to collect a large number of sentences and see whether it works. In Ono (1993, 1994), it was demonstrated that the adjectives types which allows the infinitive an object gap appear in a sentence which denotes the subject's property. Quirk et al. (1985) introduced seven types of "adjective + infinitive" constructions. Yasui et al. (1976) deals with a large number of adjectives and classifies them into nine categories according to their syntactic behavior. How these two studies classified adjectives is summarized below

# in (7):

(7)	the	Itto form	OBJ gap control,	SUB gap control
е	asy	$\checkmark$	$\checkmark$	*
p	retty	*	$\checkmark$	*
n	ecessary	$\checkmark$	*	*
S	tupid	*	*	$\checkmark$
e	ager/ able	*	*	$\checkmark$
а	ngry	*	*	$\checkmark$
t	all	*	*	*

The two studies are not quite identical as to the classification. As far as the current issues are concerned, however, what the two studies imply to the issue of classifying adjectives is almost similar. As is clear from the table above, the adjective types which allow the infinitive with an object gap are easy and pretty. The easy type is what appears in a tough construction.<sup>2</sup> Then, how about the pretty type? Let us consider the following sentences.

- (8) a. Mary is pretty to look at e.
  - b. This orange is delicious to eat e.
  - c. This flower is fragrant to smell e.

We can see that the both types of adjectives share some basic properties as to the infinitive. Moreover, both types imply the subject's inherent property. So it can be said that the infinitive with an object gap occurs when the adjective implies the inherent property of the subject and that the easy and pretty types are among such classes. As the below sentences show, the pretty type does not allow the It... to... form, so the two types are not identical:

- (9) a. \* It is pretty to look at Mary.
  - b. \* It is delicious to eat this orange.
  - c. \* It is fragrant to smell this orange.

Admitting these are the correct observation, you might have the feeling that some of the other types of adjectives can express an inherent-property meaning but cannot involve the infinitive with an object gap. This is a very important question in our framework and we have to consider why. Actually the two studies cited above indicate that the *necessary* and *stupid* types cannot involve such an infinitive, still express an inherent property of the subject; thus enter into a distinct class from *easy*.

Ono (1993, 1995), however, argued that the *necessary* and *stupid* types of adjectives can follow the infinitive with an object gap if the predicate expresses an inherent property of the subject, thus, are no exception to the hypothesis. Let us consider this issue for a while. Examples of the following kind, where the non-easy/pretty type of adjective are involved, are believed to be marginal at best under a

neutral context, though not completely unacceptable. This is consistent with what is traditionally believed:

- (10) a. ?? Mary is stupid to talk to e.
  - b. ? This work is necessary to complete e.

Since adjectives in (10) are not very different from easy, pretty, etc., in that they express an inherent property of the subject, these sentences appear to falsify our argument that the infinitive with an object gap appear in a sentence which expresses an inherent property. But this turns out to be a strong piece of supporting evidence for our claim if we look at the following sentences:

(11) a. √/? Mary is pretty to look at e, but stupid to talk to e.
b. √/? This work is difficult to do e, but necessary to complete e.

The improved status of (11) can be explained in the following way: The primary meaning of the adjectives stupid, necessary, is somehow vague in its inherency to the subject: without any concrete context, the "inherency" between the subject and the adjective seems to be less clear. As will be claimed later, stupid is ambiguous between an "inherent-property denoting" use and a "temporal-property denoting" use. In a case of necessary, 'judgment' meaning is very strong (cf. Ono 1993). But, given a proper context (expressed in the former conjunct) where an inherent property reading is forced, these adjectives can be used as expressing an inherent property. It depends upon this kind of an appropriate context whether the use of the infinitive with an object gap is licensed. The following sentence illustrates that (11) is a sentence which denotes an inherent property of the subject:

- (12) Mary is pretty to look at, but stupid to talk to, because ...
  - a)  $\sqrt{}$  she lacks common sense.
  - b) ?? she is in a bad-temper now.

Sentence (12a) expresses an inherent property of the subject entity (*Mary*). However, the reason clause expresses a temporal reason about the property of the subject in the case of (12b). This is a semantic inconsistency in a causal relationship.

So far we have observed that the adjective which expresses an inherent property of the subject is capable of involving the infinitive with an object gap. One might wonder, however, if the adjective which does not express an inherent property of the subject (i.e., a temporal property) allows such an infinitive. The following sentences show that our hypothesis is correct; the infinitive with an object gap *cannot* appear in a sentence which denotes a temporal property.

- (13) a. \* John was angry to convince e.
  - b. \* John was eager to convince e.
  - c. \* John was liable to convince e.

Summarizing what is discussed in this section, the possibility of the infinitive with an object gap control is dependent upon the semantic relationship between the subject NP and the predicate; the predicate expresses an inherent property of the subject. In the following section, I would like to introduce a more general semantic distinction which captures the observation given above and demonstrate that the *stupid* type is ambiguous between the two.

# 3 The Event Argument and the Stage / Individual-level Predicates

#### 3.1 Introduction

Carlson (1977) introduced the stage-level and individual-level predicates distinction in order to show that a number of grammatical phenomena are sensitive to this distinction. A stage-level predicate such as sick or available attributes a temporary property to (a stage of) an individual at a particular time and place, whereas an individual-level predicate such as tall attributes an enduring or essential property to an individual. Kratzer (1988), Stowell (1991) and other works make use of this distinction and claim that they differ in argument structure; the defining property of stage-level predicates is that they contain an Event argument of the sort discussed by Davidson (1967). Kratzer (1988: 2) introduces this terminology and claims that "stage-level arguments are 'Davidsonian' in that they have an extra argument position for events or spatiotemporal location. Individual-level predicates lack this position. "We would like to assume that the factor deciding whether an adjective is an individual-level predicate or a stage-level predicate is the existence of the so-called "Event" argument, following Kratzer (1988). This means that, if there is an Event argument, the individual-level predicate interpretation is not available.

This distinction seems to be independently necessary, because it accounts for the following kinds of contrasts, at least descriptively:

#### (14) There-insertion

- a. There are firemen available.
- b. \*There are firemen altruistic.

### (15) Bare Plurals

- a. Firemen are available.
- b. Firemen are altruistic.

### (16) Absolute Constructions

- a. Standing on a chair, John can touch the ceiling.
- b. Having unusually long arms, John can touch the ceiling.

(Kratzer 1988: 1)

"Altruistic" and "having unusually long arms" are typical examples of individual-level predicates. "Available" and "standing on a chair" are typical examples of stage-level predicates. The contrast in (14a) and (14b) is a contrast in grammaticality. The contrasts between (15a) and (15b) and between (16a) and (16b) are those in interpretation. The contrast in (14) shows that the individual-level predicate cannot

occur in the *there* construction. The contrast in (15) is concerning the availability of the existential interpretation of bare plurals; (15a) can mean that there are available firemen, but (15b) cannot mean that there are altruistic ones. Absolute constructions involving stage-level predicates imply the "condition" interpretation: (16a) can mean 'If John stands on a chair, he can touch the ceiling', but (16b) cannot mean 'If John has unusually long arms, he can touch the ceiling'. These three contrasts reflect the individual-level stage-level predicate distinction. Since we are interested in the descriptively adequate generalization, we would like to assume that this distinction is independently necessary although we do not discuss the analysis from a theoretical point of view (e.g., Kratzer 1988, Stowell 1991 etc.) of this distinction.<sup>3</sup>

### 3.2 The Stupid Type and the Individual / Stage-level Distinction

In this subsection, we would like to consider what we have to say about the *stupid* type with respect to the above distinction. Assuming the individual stage-level distinction laid out in the last subsection, I would like to claim that we have to say that the *stupid* type of adjective should be considered as being ambiguous between an individual-level predicate and a stage-level predicate uses. Since the stage-level predicate must involve an Event argument, the following type of sentences must be regarded as constructions involving stage-level predicates:

- (17) a. John was stupid to punish the dog.
  - b. It was stupid of John to punish the dog.4

Clearly, the infinitive clause to *punish the dog* corresponds to an Event and it determines that the adjective is a stage-level predicate. On the contrary, the following sentence is considered to be ambiguous:

### (18) John was stupid.

One interpretation of this sentence is that the Event argument is implicitly present. In this case, the adjective *stupid* is interpreted as denoting a temporal property of the subject NP; the adjective is a stage-level predicate. The other interpretation is that the Event argument is originally absent. In this case, the adjective is interpreted as being an individual-level predicate, expressing an inherent property of the subject. On the basis of these examples, Stowell (1991) claims that the Event argument involved in a sentence which contains a stage-level predicate is simply optional.

If this is correct, it means that the stupid in a stage-level use should show the same effect concerning the three tests mentioned in (14-16) above; *there*-insertion, bare plurals, and absolute constructions. This seems to be correct, as the following sentences show:

### (19) There-insertion

a. There are men stupid [to punish the dog]. (a stage-level predicate)

b. \*There are men stupid.

(an individual-level predicate)

- (20) bare plurals
  - a. Men are stupid to punish the dog.
  - b. Men are stupid.
- (21) absolute constructions
  - a. Being wise at home tomorrow, you will get a nice present from Father.
  - b. Being wise, you will get a nice present from Father.

As illustrated in (14) above, the individual-level predicate cannot appear in there-construction in (19). Stupid in (20b) is actually ambiguous between an individual-level and a stage-level predicates, but if it is an individual-level predicate, the sentence is ungrammatical. As is the case with (15), bare plurals with individual-level predicates must be interpreted generically. This contrast in interpretation is real in (21). As is true with (16), the stage-level predicate stupid only allows a "condition" interpretation in (21a).

### 3.3 The Ambuguity and the Infinitive with an Object Gap

As discussed in the last section, where the semantics of the infinitive with an object gap was discussed, it was suggested that the infinitive with an object gap can occur freely as far as the matrix sentence denotes an inherent property of the subject. Here, the inherent property can be interpreted as the property denoted by an individual-level predicate. Hence, the property of allowing the infinitive with an object gap should be observed in the case of *stupid* as "individual-level predicates" if the adjective is used as an individual-level predicate. In fact, facts are not crystal clear, but the following type of the sentences can be the evidence that rather acceptable examples are more or less individual-level predicates:

- (22) a. Mary is pretty to look at e, but stupid to talk to e.
  - b. ? Mary usually acts foolishly, but clever to talk to e.

The former conjunct expresses an inherent property, and the latter conjunct can be thought as expressing an inherent property in this structure. In these examples, the only interpretation expressed by these adjectives is the "inherent property" reading, rather than the "temporal property" reading. If the adjective is forced to have a stage-level reading, the adjunction of the infinitive with an object gap will result in unacceptability:

(23) ?? Mary was angry at the news, and stupid to talk to e.

This is consistent with our claim in this paper: If the adjective denotes an inherent property of the subject, the infinitive with an object gap can occur with it.

### 4 Summary

In this paper, we discussed the stupid construction and claimed that we need to

posit a lexical ambiguity between an individual-level and stage-level predicates, which is responsible for some phenomena. The discussion laid out in this paper brings us a nice implication for the *stupid* type adjectives in the following ways: viz., this idea explains the unexpected distributions of (i) the *there-construction*, (ii) the contrast in interpretation of bare plural subjects, (iii) interpretation of absolute constructions, and (iv) the occurrence of the infinitive with an object gap. These are not expected from the traditional classification of adjective classes on the basis of superficial phenomena, or any kind of analysis which pays no attention to the semantics of the *stupid* adjectives.

#### Notes

- 1. Some interesting theoretical proposals were provided in Stowell (1991). He claims that the alternation observed in the *stupid* construction is something like an unaccusative-like one. He reviews Burzio's observation that verbs lacking an external argument are unable to assign Case to their object. This is generally called "Burzio's generalization". This gives rise to the unaccusative alternation, as illustrated in (i) below:
  - (i) a. Bill arrived.
    - b. There arrived a man/\*Bill.

It is generally assumed that the unaccusative verb arrive takes an NP as a complement, and no other argument (e.g., an external argument). Given Burzio's generalization, the complement NP cannot receive structural Case from the unaccusative verb since it lacks an external argument. It may move to the matrix subject position (i.e., the spec of IP), where it receives Nominative Case. Or it may remain in situ, where it is subject to the definiteness effect, as in (2b).

One question on this unaccusative analysis is "How does the postverbal NP come to get Case at the complement position?" Stowell (1991: 108) presents two choices. One is from the claim that the post verbal NP must form a chain with the expletive there and the postverbal NP somehow receives Case. The other choice is that the inherent partitive Case is assigned to the postverbal NP. The issue of choosing which is beyond the scope of this paper.

According to Stowell (1991), the alternation in (ii) is also generally assumed to work similarly:

- (ii) a. The arrival of a man/of Bill
  - b. Bill's arrival

Here the genitive NP originates as a complement of the derived nominal. It can remain in situ and receive genitive Case (of), as in (iia). The NP can also move to the prenominal spec of NP (or spec of DP) position, as in (iib), where another kind of genitive Case ('s) is realized.

This way of explaining the unaccusative-type alternation can be extended to the *stupid* construction, he claims. First, observe the following:

- (iii) a. It was stupid of John.
  - b. John was stupid.

Stowell points out that it can be supposed that the sentient argument originates as a

complement within A'. Then the adjective may assign genitive Case to it. But nothing prevents this argument from undergoing NP movement out of AP to the spec of IP position, where it receives Nominative Case.

Moreover, Stowell assumes a "Larsonian" structure of AP to capture the argument structure alignment of *stupid*. We cannot evaluate these analyses Stowell proposed on the conceptual and empirical ground at present. However, we will assume the basic descriptive observation given in Stowell (1991); his basic paradigm in (1-4) and the stage/individual-level predicates distinction throughout this paper.

- 2. Yasui et al. (1976: 133) presents a list of this class of adjectives: absurd, arrogant, asinine, audacious, bad, bold, brainy, brash, bright, brilliant, brutish, careless, clement, clever, conscious, contemptible, courageous, courteous, cowardly, crafty, craven, crazy, cruel, cunning, cute, daring, decent, disagreeable, doltish, energetic, excellent, fair, foolish, gallant, generous, gentle, good, gracious, grateful, heroic, honest, ill-natured, indulgent, insensitive, insolent, intelligent, intrepid, kind, lenient, mad, manly, merciless, mild, moderate, naive, naughty, nice, noble, polite, preposterous, presumptuous, prudent, rash, reckless, ridiculous, right, rude, sagacious, sage, sapient, saucy, selfish, senseless, sensible, shameful, sharp, shrewd, silly, smart, sound, splendid, stingy, stupid, tactful, tender, torpid, thoughtful, valiant, wary, wicked, wise, wrong, etc.
- 3. Kratzer (1988) discusses the interpretation of bare plural subject NPs, which are typically interpreted existentially with stage-level predicates and generically with individual-level predicates. He claims that this distinction follows from whether the bare plural subject originates inside or outside the scope of an existential operator. According to Kratzer, a stage level-adjective available has an Event argument, so its subject can originate VP-internally, within the scope of the existential operator, producing the existential interpretation, and then it raises to the standard subject position. On the other hand, the subject of the individual-level adjective like altruistic originates outside the VP, the scope of the existential operator, which ultimately gives rise to the generic interpretation. These are illustrated below:
  - (i) a. Firemeni are [ti available].
    - b. Firemen are altruistic.
- 4. Bolinger (1977: 137) concerns the subject-like status of the prepositional of phrase and points out that the construction (*It was foolish of Mary to go there*) "seems to have the effect, by comparison with type 3 (*Mary was foolish to go there*), of toning down the impact of the adjective. Speakers must be careful when they call people names; the thrust can be parried by seeming to aim the adjective at the action rather than at the person --- the of construction is euphemistic". This statement seems to imply that the of construction potentially expresses something about the subject human (sentient), similar to "Mary was foolish to go there".

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