

**On Three Types of Interpretation of Noun Phrase in English:
Entity, Quantity, and Quality ***

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1. Introduction

In this article, I discuss three types of interpretation of noun phrases (henceforth, NPs) in English and constructions related to them. The three types of interpretation are called “reference-to-a-single-entity” reading, “quantity-oriented” reading, and “quality-oriented” reading, respectively. These readings have a close relationship with the three forms of NPs shown in (1):

- (1) a. an NP with a singular count noun head (a singular NP)
 b. an NP with a plural count noun head (a plural NP)
 c. an NP with a mass noun head (a mass NP)

The three forms of NPs have a great deal to do with amount relative clauses. Textbook examples of this type of relativization are marked by the head NP which corresponds to the postverbal NP of an existential *there*-construction.

- (2) a. *The man that there was in Australia likes Bob.
 b. The men that there were in Australia like Bob.
 c. The meat that there was was soon eaten by the cougar.

Carlson (1977:526f.) attempts to state the condition on relativization of this type in terms of the countability of a head noun. The data in (2) suggest that it appears to be possible when the head is either a mass noun or a plural noun, but not when it is a singular count noun. Carlson argues that the relativized NPs are expressions of amount, or all of an amount available. Thus, the head noun must be capable of expressing amount or quantity, and the nouns that do not express such senses are excluded from this construction.

As I will argue in what follows, the correspondence between the condition and the countability is not so simple, and we will have to take into consideration a variety of scales expressible by singular NPs.

Carlson also points out that the relativized NPs of amount relative constructions are always definite, and indefiniteness is excluded from this environment:

- (3) {*Five/*Several/*Many/*Most/Those} men there were here disagreed.

Because the relativized NPs express the “all-of-an-amount-available” sense, the determiners for these NPs, too, must be capable of covering all the range of, and indicating the upper limit of, the amount or quantity expressed by the head noun. Definite determiners such as *the* and *those*, but not indefinite determiners, have this function of setting a limit to something extensible in nature.

This article is organized as follows: In section 2, I will review previous studies on quantity and degree expressions, and define the notion of what I here call the “extensibility” sense as a property shared by both expressions. In section 3, I will introduce the idea of Scale Uniqueness in order to account for definiteness involved in a couple of constructions. In section 4, I will review basic facts about amount relative constructions, and point out that their acceptability depends on the “extensibility” sense expressed by the head NP. In section 5, I will argue that the “predicativity” of NPs is a necessity for the account of amount relative constructions and other related constructions. Section 6 to section 9 will deal with a number of constructions which are best described in terms of the predicativity of NPs. I will discuss repeated NPs in *there*-constructions, superlative constructions, inherent quality NPs, body-part nouns, predicate NPs, and complex NPs in light of a predicativity-based analysis. Section 10 concludes this article.

2. Single Entities versus Extensible Denotata

2.1. Previous Studies: Bolinger (1972) and Gary (1979)

In this section, I will illustrate what I here call extensibility by reference to several uses of singular, plural and mass NPs. Bolinger (1972) uses the notion of extensibility to describe the intensifier *such* that modifies plural and mass nouns. According to Bolinger (1972:81), “mass nouns and plural nouns are intensified for their feature of massness and plurality. They are intensified EXTENSIBLY, i.e., in terms of their extent or quantity.” His examples include:

- (4) a. I was in Washington that week-end. I’ve never seen such people.
Traffic was paralyzed. (‘such a quantity of people’)
- b. Such space we surveyed as would stagger the imagination. (‘such an extent of space’)

He distinguished between the intensification of extensibility and the intensification of degree. In the latter case, intensifier *such* combines with degree nouns like *blunder* and *nonsense*. Relevant examples and paraphrases include:

- (5) a. He committed such a blunder that the department lost prestige.
‘He committed a blunder that was such (so great) that ...’
- b. He hired such a fool that the department lost prestige.
‘He hired someone who was such a fool (so foolish) that ...’
- c. They hired such fools that the department lost prestige.
‘They hired persons who were so foolish that ...’

Notice that Bolinger’s “degree nouns” include not only singular count nouns, but also plural and mass nouns. They are nouns whose meaning includes an adjective-like

element that expresses an evaluative or quality-oriented sense. As we will see in section 8, however, singular NPs are particularly fitted to express the quality-oriented sense in comparison to the other forms of NPs. Apparently, plural and mass nouns such as *people* and *space* are void of such an evaluative sense, but in section 6, it will be clear that a certain quality-oriented sense can be made of the very fact that plural and mass nouns of this kind express extensibility with respect to quantity.

Making essential use of Bolinger (1972), Gary (1979) attempts to provide a unified account of quantity-oriented expressions and quality-oriented expressions in terms of a higher-level notion EXTENT. For Gary, EXTENT is the generic term for all expressions that accept comparison and scalar modification. He argues that quantity and degree (of quality, K.N.) are “two different manifestations of EXTENT (p.36),” by pointing out that as exemplified by *such*, many of the items that express quantity are also items that express degree of quality. Moreover, there are cases that are ambiguous between quantity- and quality-oriented readings. For example:

(6) He has a lot of patience.

This sentence has a quantity-oriented reading when it is interpreted as ‘he has a large amount of patience,’ and it has a quality-oriented reading when it is interpreted as ‘he has a high degree of patience.’ In either case, the difference is not clear, suggesting that both senses come from a single underlying concept. This is what he calls EXTENT. A generalization goes as follows: Quantity is concretely extensible in space, and quality is conceptually extensible along a scale.

Here I use the term “extensibility” in the sense of Gary’s EXTENT, but in a more restricted way. While both Bolinger’s extensibility and Gary’s EXTENT are designed to cover a variety of word-classes such as nouns, adjectives, adverbs, and verbs that are used to express quantity and degree senses, my extensibility is applied only to a limited range of uses of NPs which express such senses.

It should be noted at the outset that for Bolinger, the distinction between degree nouns and quantity nouns is purely a matter of semantics, but, as I argue, the semantic distinction of nouns can be developed into analysis of the constructions in which the nouns are used. My objective is to make sense of the triangular relationship between a noun’s sense, its form as an NP, and the type of construction or predication in which it is appropriately used. In the amount relative construction, a triangular relationship of this kind has to do with (i) a noun expressing quantity, (ii) whose form is primarily mass or plural, or singular with several conditions that will be made clear in section 4, and (iii) the predication-type in which to express all of a quantity available leads to intensification of the smallness of it. In what follows, I will provide a set of data that are best described in terms of triangular relationships of this kind.

2.2. *The Parallelism between Quantity and Degree of Quality*

A sharp line should be drawn between single entities and extensible denotata such as quantity and degree of quality. While a single entity can be described only in terms of the presence or absence of that entity, a given quantity can be described not only in terms of its presence or absence, but also in terms of the extent to which that quantity exists. Similarly, a given quality can be described in terms of the degree to which that quality is manifested.

As shown in (2), the selection of the head noun of amount relative constructions suggests that there is a correspondence between a reference-to-a-single-entity reading and singular NPs, on one hand, and a quantity-oriented reading and plural and mass NPs. I argue that this is basically right, but such correspondences can be changed to the extent that singular NPs may express quantities or qualities, and plural and mass NPs may express qualities.

Quantity is the basic model of extensible denotata. There is evidence that, unlike the entity denoted by a singular NP, what is denoted by a plural or a mass NP is extensible, and so its size can be changed.

First, consider the modification relationship between *that much* or *that many* and the three types of NPs in light of the extensibility. Carlson (1977:527) notes that these quantifiers may precede plural and mass nouns, but not a singular noun, as in (7):

- (7) a. that much sand
 b. that many birds
 c. *that {much/many} lamp

Carlson adds that a similar point can be made in relation to the comparative *more*. This too can go with mass and plural nouns, but not with singular count nouns.

- (8) a. He spent more time perfecting his dance moves instead of gym work.
 b. He said more {words/*word} than I thought.

Unlike plural and mass nouns, singular count nouns cannot be used in this comparative construction. The quantifiers in (7) and the comparative *more* in (8) are used to express the extensibility with respect to quantity.

The facts shown above suggest that plural and mass nouns are used to denote quantities whose size is extensible, singular count nouns are used to denote entities, each of which is discrete and is not amenable to description in terms of quantity.

However, the comparative *more* is concerned not only with quantity, but also with degree of quality. Singular NPs can be used with *more* in this latter sense if they are used with *of a*. The following example comes from Bresnan (1973:273):

- (9) I'm more of a man than you are, my dear.

Bresnan argues that this *more* has to do with degree rather than quantity. Notice that the indefinite NP *a man* in (9) is a predicate NP, a type of non-referential, and quality-expressing, NP. Bresnan also points out that this type of *more of a N* phrase may not occur in the positions that are conventionally occupied by referring expressions, but is acceptable in negative sentences. The sentences in (10-11a) are odd, but (11b) is fine.

- (10) a. ?More of a man is here.
 b. ?I've kicked more of a man than you have.
- (11) a. ?I've known more of a man than Frank.
 b. I've never known more of a man than Frank.

Although Bresnan has nothing to say about this, we may say that both predicate NPs and the NP in a negative sentence are non-referential, which is instrumental in their quality-oriented reading. This type of singular NP with indefinite article *a* will be taken up in section 8 in reference to the inherent quality expressed by it.

In view of these facts, I suggest that a singular NP is basically used with the reference-to-a-single-entity reading, but this reading may be replaced by other extensibility-oriented readings on the condition that it is not used for identifying a particular entity.

In (9), the comparison has to do with the degree of quality expressed by the singular NP. Like quantity, quality is extensible with respect to its degree. It is true that singular NPs themselves do not express the extensibility with respect to quantity. When used non-referentially, however, they turn to express extensibility with respect to quality. I suggest that the best way to state this fact is in terms of "predicativity." By the predicativity of NPs I mean the range of predication-types of which a given noun can make a predicate. Singular NPs are basically excluded from the predication-type in which something extensible is described. With the help of *of a*, their predication-type is enlarged and comes to cover something extensible, i.e. quality. I propose to say that singular NPs denoting qualities are higher in predicativity than singular NPs that have the reference-to-a-single-entity reading alone, since they can be predicates of a wider range of predication-types.

I argue that the shift in predication-types made by singular NPs has a great deal of relevance to various types of constructions, by pointing out the correlation between a shift in predication-types and a shift in relativization possibility, modification, and grammatical number.

3. Definiteness of Scale Uniqueness

In Nishida (1999), I argued that the definiteness involved in amount relative

constructions is a case of what I have called Scale Uniqueness.¹ The definiteness in question should be accounted for not in terms of reference to a unique entity, but in terms of the full extent to which a given property exists along a scale. As we will see, the full extent may be the upper limit of a given quantity or the top rank formed by comparison with similar entities. All these cases have in common the idea that a particular or unique position is determined in relation to the extent which has that position in its boundary: this is the source of the uniqueness sense under discussion. In the sense of Scale Uniqueness, definiteness is the sign of the full extent of a given scale. In section 7, we will also point out cases in which definiteness expresses both Scale Uniqueness and the uniqueness sense that is based on the reference to a particular entity or a particular set of entities.

Let me illustrate Scale Uniqueness in reference to the definiteness involved in quantifying superlative constructions and predicational relative constructions.

First, we review some characteristics of the quantifying superlative construction. Fauconnier (1975:353) notes that in (12), the definite NP in italics is ambiguous.

(12) Tommy will not eat *the most delicious food*.

On one reading, the definiteness is a sign of reference to, and identification of, something particular. The NP is used to identify a particular kind of food, and is paraphrased as follows:

(13) Tommy will eat all kinds of food, except for the most delicious.

On the other and more natural reading, the definiteness is related to quantification, and paraphrased as (14):

(14) Tommy refuses to eat any food at all.

The definite NP on this reading does not exhibit the identifying function, as it does on the first reading. This reading is a case of quantifying superlatives, and we are going to examine their definiteness in light of Scale Uniqueness.

Fauconnier points out that in (15) the definite superlative NP is equivalent to the indefinite *any* NP, and that the *any* has a universal quantifier reading.

(15) My uncle can hear {any noise/the faintest noise}.

This is a fact. Now I argue that it is important to consider why definite superlative NPs may be equivalent to the indefinite NPs determined by *any*, as shown in (15).

This equivalence shows that the definiteness involved cannot be reduced to reference to a unique instance of noise. Notice that *faintest* has 'smallness' as part of its meaning. The definiteness in question makes sense if it marks the full extent to which the quantity or range of noise described by the sentence can be small and diminished. The equivalence holds because, like the definiteness of the Scale Uniqueness type, the universal quantifier *any* covers all the range of the noise, too.

Superlative NPs such as the one in (12) is ambiguous between the reference-based reading in (13) and the reading in which the head noun stands for a scale, and the definiteness marks a unique position on the scale, i.e. the full extent to which a quantity can exist. The latter is a case of Scale Uniqueness.

Similar remarks apply to the definiteness of a relativized predicate NP. The predicational relative construction in (16a) is paraphrased by the *that*-clause introduced by *the same degree*, as in (16b):

- (16) a. He is exactly the villain that his father was.
 b. He is a villain to the same degree that his father was a villain.

In (16), the nominal predicate *villain* describes a bad side of one's quality and scalar in meaning. Here the extensibility sense is arranged as degree of quality. Like quantity, quality too can be extensible along a scale. The definiteness in (16a) shows that the extent of his quality for a villain exactly coincides with the extent of his father's quality for a villain, and so the two instances of a quality 'villainhood' share a unique degree as their full extent.

I pursue this line of analysis of definiteness, and argue that Scale Uniqueness has a direct bearing on the extensibility senses expressed by NPs. I discuss a number of conditions under which NPs have such senses, and combine with the definiteness of the Scalar Uniqueness type to produce a variety of constructions.

4. Amount Relatives Associated with Singular Head NP

4.1. Determiners and Modifiers of Singular NPs

In (2-3), we have seen that the head noun of an amount relative construction is either plural or mass, and that noun is marked by a definite determiner. However, this is not the whole story of the amount relative construction. In this section, we will examine several cases in which the basic rule is overridden by the factors which serve to provide the extensibility sense for the singular count noun head.

Carlson (1977:525, 527) observes that the amount relative may be associated with a singular NP which is determined by *every*, but not by *some*, *each* or *a*:

- (17) a. *{Each/A} man there was disagreed.
 b. {*Some/Every} man there was on the life-raft died.

Like the plural and mass NPs determined by *the*, the singular NP determined by *every* is compatible with the "all-of-an-amount-available" sense required in this construction, which the singular NP determined by *some* cannot have. To provide evidence for this characterization, Carlson observes that the *every* singular NP may occur with the predicates that are used with a subject NP with plurality sense. For instance, *gather*:

- (18) a. Every man that gathered in the street was interviewed.

- b. *{The/That} man that gathered in the street was interviewed.

As we will see shortly, this is not the only case where amount relatives may be associated with singular head NPs.

The unacceptable examples with *some* and *a* in (17) may be explained away in terms of the indefiniteness of these determiners, but the unacceptability of the *each* example is different in nature from them. We have to consider the semantic difference between *every* and *each*. Ikeuchi (1985:130) illustrates this point by reference to the contrast in (19), which is adapted from the text of Vendler (1967:78):

- (19) a. {Every/??Each} deputy rose as the king entered the House.
 b. {??Every/Each} deputy rose as his name was called.

To borrow one of Vendler's phrases, the singular NPs determined by *every* are compatible with the context in which all the deputies rose "like one man" at the moment the king entered. The singular NPs determined by *each*, on the other hand, are compatible with the context in which all the deputies are divided into individuals.

Although both take a singular count noun and are distributive for a universal quantification reading, *every* and *each* are different in that the former covers a set of multiple entities exhaustively, but the latter focuses on the individuality in such entities. This means that *every*, but not *each*, may go with the upper limit sense of the amount relative construction, for it is based on multiple entities which make an extensible set.

Grosu (1996:265) points out a different condition under which the amount relative clause may be associated with a singular head NP. The condition is concerned with modification of a singular count noun with a numeral adjective like *one* or *single*. To make a contrast with (2a), the following example is acceptable:

- (20) The {one/only/single} man that there was on the island is dead by now.

The numeral adjectives in (20) express the concept of cardinal number. They are used to add the sense of the upper limit which a given entity has with respect to a number series. The reading of the singular NP so modified is not just a reference-to-a-single-entity anymore; it also includes a quantity whose upper limit is expressed in terms of cardinal number, i.e. only one. Practically, this is the smallest quantity present that can be measured in terms of a singular NP.

This type of relativization is impossible if a singular head NP denotes just a single independent entity. By contrast, it becomes possible if that head is interpreted to express a property which is extensible, i.e. the quantity expressed in terms of a cardinal number.

4.2. *The Type of Quantity Expressed by Amount Relative Constructions*

As far as amount relative constructions are concerned, there is a convention to the effect that to mark the upper limit of a quantity is to highlight the smallness of that

quantity; definite determiners of plural and mass NPs serve to set a boundary to the quantity which would otherwise be unbounded in nature (see Shi (1990) for example). In other words, amount relative constructions have only one predication-type in which a given bounded quantity is described as being small.

A glance at the following sequence reveals that the quantity expressed by the relativized NP comes close to, but is not equated to, zero. Note that # shows that the continuation does not make a coherent discourse.

- (21) {The/What} little English she knew was of no avail. She knew
#(almost) no English.

In (21), the continuation must be accompanied by *almost*, which shows that the relativized NP in the first sentence denotes some quantity present, but that quantity is extensible only to a small extent. Notice that the amount relative clause in (21) involves *know English*, a verb phrase whose object NP is understood to express a quantity. The following is an illustration of the quantity-scale involved in (21).

- (22) 'As for knowledge of English, she had it to quantity x.'
x1 -----knowledge of English----- x2
upper limit

Here, to mark the upper limit to a quantity that would otherwise be unlimited in breadth and depth is to highlight the smallness of that quantity. This implication is included as part of the senses expressed by the amount relative construction.

Thanks to this implication, the relativized NPs of amount relative constructions are compatible only with adjectives which express smallness of quantity, *few* for a plural NP and *little* for a mass NP. Relevant examples are:

- (23) a. He uses what {few/*many} resources he has to best effect.
b. Then the anger builds up, the quarrels intensify and what
{little/*much} charm there was in the relationship finally erodes.

Interestingly, the definite article involved in amount relative constructions may be replaced by *what* when the head noun is either mass or plural. This *what* is a relative adjective, whose meaning *COBUILD* defines as 'the whole of an amount available.'

The next question is not so much that the singular head noun is used with a certain type of modification as that the head noun changes its meaning in itself. Reed (1982:355f.) offers the following examples, which have to do with the question of how to interpret the head noun *child*.

- (24) a. *The child that there was in that house seldom emerged.
b. The child that there was in him seldom emerged.

Reed says of (24a) that the prepositional phrase *in that house* imposes on *the child* "an extralinguistically specific interpretation," i.e. a reference-to-a-single-entity reading,

and this sentence is unacceptable. By contrast, the prepositional phrase *in him* does not impose such a reading on the NP, and so (24b) is acceptable.

It is crucial to see the kind of reading *the child* has in (24b). Although Reed has no comment on this, the parallelism between the amount relative construction and (24b) leads us to say that the singular NP is assigned the quantity-oriented reading. On this reading, *child* expresses the quantity of childhood. At the same time, it clearly carries a sense of quality, i.e. a characteristic of the person described in (24b). Thus, we may safely say that *the child* indicates the upper limit to which the quantity of the quality exists. In section 9, we will have more to say about the quantity of quality expressed by a singular NP.

5. A Predicativity-Based Analysis

As we have seen, in amount relative constructions, the NPs are supposed to express the upper limit of a quantity. Plural and mass NPs are more suitable for this type of predication than singular NPs. However, singular NPs are modified with *every* or numeral adjectives to be permitted to the head of the constructions. In the simplest cases, a singular NP is used to make predications in which it describes the presence or absence of a single independent entity. When it is modified with a numeral adjective, on the other hand, it can make not only predications about a single entity, but also predications in which that entity is described in terms of quantity.

This shift in predication-types means that a singular NP modified with a numeral adjective is higher in predicativity than a singular NP without such modification with respect to quantity. Predicativity is measured in terms of the comparison between two or more related NPs with respect to a specific type of predication. I argue that this type of analysis applies to NPs that express quality, too.

To generalize the analysis of the head NP of the amount relative construction, I propose the following principle, and provide a set of arguments in its favor:

- (25) Principle of the NP form and predication-type correspondence: The more semantically specific a predication-type is, the more restricted the range of NP forms that can be used appropriately in the predication-type. An NP form that is otherwise inappropriate can be appropriately used in a specific predication-type if with the help of other concomitant elements, the predicativity of the NP form can be adjusted to that predication-type.

Thanks to this principle, a strict triangular relationship between a noun's sense, an NP form, and a predication-type holds for a construction that is specifically used to describe a specific situation-type. By contrast, such a strict relationship does not hold for a construction that can be used to describe a wide range of situation-types.

Let me illustrate how Principle (25) works in reference to the condition under which a plural NP can or cannot be used with the quality-oriented reading.

There are two types of contexts. In one type of context, plural NPs have a quality-oriented reading as well as a quantity-oriented reading. In the other type of context, only singular NPs have a quality-oriented reading, and plural NPs are unacceptable on this reading. Bolinger (1972:78f.) offers several syntactic test frames in which degree nouns are distinguished from other types of nouns. One is concerned with the complement NPs of *seem*. As shown in (26), only the singular degree noun may be permitted in this frame, and other forms of NPs are excluded:

- (26) a. He seems a fool.
b. *They seem fools.

On the other hand, the complement NP of *be* makes no difference with respect to the forms of NPs. In (27a), *weaking* is a degree noun and so it can take a *to*-infinitive complement. This is also the case with plural *dullards* in (27b). However, *patient* is not a degree noun, and so complementation of this type is unacceptable.

- (27) a. You were {a *weaking*/*a *patient*} to give in to the doctor.
b. They are *dullards* to miss the point.

In the context of complement of *be*, the NP has to satisfy only the semantic condition, but in the context of *seem*, it has to satisfy both the semantic and the formal conditions. Thus, a strict triangular relationship holds for the latter: a degree noun, a singular NP, and the predication-type in which the speaker describes his subjective judgment.

To use the terminology of Principle (25), *seem* makes a more specific type of predication than *be*, for with *seem*, the speaker describes not only some entity, but also his subjective judgment on that entity.

Like the complement of *be*, the exclamative phrase too provides a context in which plurals may have a quality-oriented reading. Bolinger (1971:536) notes that the exclamative sentence in (28) is ambiguous:

- (28) What bees!

The plural NP *bees* can mean either the intensified massness of the bees or their remarkable nature. The gloss for the first reading is 'What quantities of bees!' and that for the second reading 'What unusual bees!' The former is a quantity-oriented reading, and the latter reading is a quality-oriented reading. As stated in (25), exclamative *what* serves to adjust the predicativity of a plural NP to the predication-type in which a remarkable quality is described.

6. Variety-Oriented Reading of Plural and Mass NPs

Plural and mass NPs have a quantity-oriented reading which can, by extension,

express what singular NPs cannot. As I suggested in section 2, plural NPs have a quality-oriented reading which is different in kind from the quality-oriented reading associated with singular NPs. This is a variety-oriented reading. First, consider the following contrast, taken from Wierzbicka (1988:514):

- (29) a. I visited five different countries.
 b. *I visited five various countries.

Wierzbicka notes that while *different* is an adjective which is used to describe the multiplicity brought about by individual entities, *various* is an adjective which is specifically used to describe the multiplicity brought about by several kinds.

The contrast in (29) makes it clear that there are at least two different levels of reference to which plural NPs are related, the plurality of entities and the plurality of kinds. The former may be divided into individual entities, each of which keeps its own characteristic after such division, but the latter cannot be divided in this way. The reason is that variety is a quality that comes not from a single independent entity, but exactly from mixture of multiple entities, each of which is different in kind.

Repeated NPs by means of conjunctive *and* make a construction which expresses the variety-sense. NPs of this type are typically used in *there*-sentences (but note example (30c)). For example:

- (30) a. There are guide books and guide books.
 b. Some . . . of this confusion and inconsistency arise out of misunderstanding as to what is meant by Wages for Housework, so before proceeding any further I propose to change the term in order to indicate . . . that there is housework and housework. (BNC)
 c. You can find doctors and doctors.

In these *there*-sentences, the repeated NPs do not just express a large quantity of housework and guide books, but the variety that these things possess. Example (30a) is taken from *CIDE*. The gloss offered by this dictionary for it is this: 'some are better than others.' Clearly, more than one kind is involved in (30a). A similar point is made by Quirk et al. (1985:981), who say of (30c) that the repeated NPs roughly mean 'good and bad doctors.'

This type of repetition is acceptable if the postverbal NP is a bare plural or mass NP, as shown in (30b), but is unacceptable if it is a singular NP.

- (31)??There is a woman and (there is) a woman.

This contrast makes sense, because the sense of variety presupposes the presence of plural entities and, at the same time, the loss of reference to each of the entities involved. The repeated singular NP may satisfy the former condition, but fails in the latter condition. Thus, they are excluded. The repeated mass NPs are neutral to the

former condition, and satisfy the latter condition. Thus, they are acceptable.

The triangular relationship for the variety-oriented reading is described as follows: (i) the noun has the sense of quantity without reference to an individual entity, (ii) its form as an NP is either mass or plural without a determiner, and the construction format is repetition of that NP made just once by means of *and*, and (iii) the predication-type in which the sense of variety is predicated of a quantity which includes several kinds.² The plural and mass NPs have the quantity-oriented reading, which is developed as the variety-oriented reading. By contrast, the singular NP may have a quantity-oriented reading, but the quantity expressed by a singular NP is based on the presence of a particular single entity, which serves to block the variety-sense.

7. Superlative Constructions

In this section we are concerned with the difference between the quantity-oriented reading and the quality-oriented reading. Another related construction is exemplified by the sentences in (32), in which the head noun is always modified with a superlative. Adjectives in the positive degree, *wild* for example, are excluded from this construction.

(32) a. Bill takes pictures of the {wildest/*wild} animals there are in the world.

b. I guess the whole thing is the {biggest/*big} self-deception there is.

This type of construction and the amount relative construction have in common the sense of full extent. However, it is used to express quality rather than quantity.

Unlike the amount relative clause construction, singular NPs, as well as plural and mass NPs, are available to this type of construction without any conditions.

(33) The baby is just three weeks old and my only target this year is to be the {best/*good} father there is.

This is a construction extended from the amount relative construction in that it does not specify the upper limit of a quantity, but instead, expresses the superlative quality. In this case, to express the superlative quality is tantamount to denoting some particular entity chosen from a set of similar entities.

The following is an illustration of the relevant scale:

(34) 'I am a good father in x-th rank.'

x1 ----- fathers ranked in order of good quality ----- x2
top rank

In this construction, the extensibility sense is arranged as the ranking in order of quality. Thus, to express the superlative quality of "best fatherhood" implies that a particular father which satisfies the quality will be chosen from a set of similar fathers;

they are ordered on the scale of this quality, and the father which satisfies the quality most is unique; hence marked by definiteness. In (33), the speaker's target is to become such a father.

Let us comment on the difference between quantity and quality. In the amount relative construction, NPs that express quantity are primarily headed by plural and mass nouns. Singular NPs may be used only when they are modified by *every* or numerals such as *one*, which make singular count nouns have the sense of 'entity that makes a quantity' instead of the sense of 'naming a single entity.' Modification of this kind provides singular NPs with the all-of-an-amount-available sense required in the construction, which is specifically used to express the smallness of a given amount. On the other hand, in this superlative construction, there is no restriction on the kind of head noun. The range of senses expressible is wider than the amount relative construction, for it is open not only to superlatives with positive meanings, but also to superlatives with negative meanings, as shown by the following examples:

- (35) a. When my own two are being naughty, I realise why, in some African tribes, "may you be the mother of twins" is the worst curse there is. (Brit.)
- b. Honestly, any woman who knows me knows that I am the least sexiest man there is. (Brit.)

Amount relative constructions can make only one type of predication in which the smallness of a quantity is described. This superlative construction can make two types of predication, a predication which describes a positive quality, and a predication which describes a negative quality. In this respect, the superlative construction is higher in predicativity than the amount relative construction.

As stated in (25), superlative adjectives have an auxiliary function with respect to the relativization possibility of nouns, for they help nouns of any form enter into this construction format. The relativized NP has both the quality-oriented reading and the reference-to-a-single-entity reading. The latter is a side effect; this construction is used to express a superlative quality, with it concomitantly choosing a particular entity that satisfies the quality.³ Thus, the definiteness involved here is characterized by both Scale Uniqueness and the uniqueness of reference in terms of which something particular can be identified.

8. The Sense of Inherent Quality Expressed by Singular NPs

The superlative construction described in section 7 does not have to do with the distinction among singular, plural and mass NPs. However, the formal distinction of head nouns plays an important role when it come to the sense of quality that is inherent

in some entity, rather than the quality of some entity which is given in relation to other similar entities. This is particularly true of scalar qualities.

Oehrle (1977:323) observes that the singular NP with an indefinite article is able to express a scalar quality that cannot be expressed by plural and mass NPs, citing the following contrasts:

- (36) a. How good a doctor is he? ‘To what degree is he a good doctor?’
 b. *How good doctors are they? ‘To what degree are they good doctors?’
 c. *How pure water is that? ‘To what degree is that pure water?’

The intended readings in quotation marks are unavailable for plural and mass NPs. Only the indefinite singular with *a* may combine with *how* (*good*), which makes the question about the degree to which some referent has a quality expressed by an NP in it. We call singular NPs of this type “inherent quality NPs.”⁴

Classification of nouns in terms of countability has a direct bearing on the type of scalar quality expressible by an NP. Indefinite article *a* is a mark of singular count nouns, and it is also the signal of the reading which is unique to singular NPs. A singular NP can make not only the predication in which a single entity is chosen from a set of similar entities in terms of the qualities that the chosen one is given, but also the predication in which a single entity is described in terms of the scalar quality that that entity has in it. The former is the case with the singular NP in the superlative construction, and the latter is the case with the singular NP in (36a).

9. Other Types of Inherent Quality NPs

In this section I will apply the analysis of inherent quality NPs to other types of NPs. Here it is shown that singular or plural NPs have a reference-based reading when their grammatical number faithfully reflects the number of entities that they are used to denote, but singular NPs are fit for expressing inherent qualities, even when the grammatical number does not fit in with the number of entities denoted by an NP.

9.1. *Body-Part Nouns and Their Extended Senses*

We have so far seen cases in which plural NPs have a quantity-oriented reading. However, the relationship between the plural and the quantity-oriented reading does not always hold. In fact, plurals have a “reference-to-a-pair-of-entities” reading when they are duals, nouns which denote a pair of entities whose number is normally two. When the plural has the reference-to-a-pair-of-entities reading, the use of a singular NP does not necessarily end up describing some abnormal situation; it expresses qualities which are related to, but are not the same as, the original pair of entities. In light of this argument, we are now able to account for the difference in

meaning between a singular NP and a plural NP. Take the example of *eye*.

- (37) a. He has blue eyes. (body-part)
 b. He has {an artistic eye/*artistic eyes} for this kind of thing.
 (ability of judgment)

In this case, the plural has a reference-to-a-pair-of-entities reading, but the singular has a quality-oriented reading. The singular NP *an* (adj.) *eye* expresses an ability inherent in the pair of entities.

Interestingly, the quality-oriented reading is associated with singular NPs whose determiner is *a*. As shown in (36), *a* is a sign of an inherent quality NP, and this is also the case with (37b). Although the situation described is abnormal, the reference-to-a-single-entity reading is available when *one* is used in place of *a*.

- (38) Lachlan Watt only has one eye; the other one looks like a real one but it's glass. (BNC)

While *one* makes a singular NP whose predicativity is concerned with reference to, and quantification of, a single entity, *a* makes a singular NP whose predicativity is concerned not only with these readings, but also with the inherent-quality-oriented reading. In this sense, *a*-singular NPs are higher in predicativity than *one*-singular NPs with respect to quality.

A similar point can be made in relation to the difference between *ears* and *an* (adj.) *ear*. I cite relevant examples from *COLLOCATIONS* (1995):

- (39) a. He has good ears. (body-part)
 b. He has a good ear for music. (ability of judgment)

The quality-oriented sense of *an eye* has to do with the ability that is exercised by eyes, which is exemplified by painting. The quality-oriented sense of *an ear* has to do with the ability that is exercised by ears, which is exemplified by music.

Because they are body-part nouns, we should call nouns like the *eyes* in (37a) not so much the plural as the dual. In these cases, the dual is more faithful to the original pairs of entities. The numbers of eyes or ears are biologically restricted to two. However, the singular wins over the plural when its sense departs from the original pair of entities and comes to express the ability or quality associated with that pair. This situation comes from the following triangular relationship: (i) nouns denoting body-parts, (ii) singular NP with *a*, and (iii) the predication-type in which the qualities associated with body-parts are described.

Originally, nouns like *eye(s)* and *ear(s)* are used to denote body-parts and have only the reference-to-a-pair-of-entities reading, but they are by extension used to express the qualities associated with the body-parts. As I have argued so far, quality is extensible along a scale, and in this sense, scalar modification is available to the

noun, as shown by the following examples, taken also from *COLLOCATIONS* (1995):

- (40) a. I don't have much of an eye for paintings.
 b. He hasn't a fine enough ear to learn music.

This extension of body-part nouns' senses is accompanied by the change in grammatical number, because the NPs for the extended sense are modeled after a indefinite singular NP whose indefinite article is a mark of inherent qualities as well as a mark of singular count nouns.

The dual NPs *eyes* and *ears* are specifically used with the reference-to-a-pair-of-entities reading, but the singular NPs (*an*) *eye* and (*an*) *ear* have not only the reference-to-a-single-entity reading, but also the quality-oriented reading. In this sense, the singular NPs are higher in predicativity than the dual NPs. The singulars allow of the scalar modification, which is incompatible with NPs that have just the reference-to-a-single-entity reading.⁵

9.2. *Predicate NPs Modified with All*

Arguments of the same kind can be duplicated in relation to the predicate NPs modified with *all*. It is a basic fact that predicate NPs agree in number with subject NPs, as shown by the following:

- (41) a. They are {teachers/*a teacher}.
 b. Ed was {a lawyer/*lawyers}.

However, it is just basics of predicate NPs and it is valid only for sentences in which each referent of the subject NP is classified into the class to which it belongs. This type of number agreement does not hold for the sentences in which the referent of the subject NP is described in terms of the quality that it has in it. For example:

- (42) a. My father was all soldier.
 b. My father and my grandfather were all {soldier/*soldiers}.

Allan (1980:553) notes that in these cases, *all* is an adjectival qualifier meaning 'completely.' The sentence in (42a) means that 'All the aspects of my father were full of qualities associated with soldierhood.'

The predicate NP modified with *all* is more of a predicate than the predicate NP that is subject to number agreement. While the former describes not only a class-membership but also the high quality for a member of that class, the latter describes only a class-membership. In this sense, the latter is higher in predicativity than the former, and is a leading candidate for inherent quality NPs. I argue that this is exactly the case.

In this quality-oriented predication, the singular wins over the plural even if the subject NP refers to more than one entity, as in (42b). This use of a singular NP is reminiscent of (37b), and a similar triangular relationship appears to be at work.

Here too is a division of labor between plurals and singulars. In the quantity-oriented use, when used with a count noun, *all* takes a plural (*all cars*/**all car*) to denote the whole amount of a quantity. Because quality is like quantity in that it is extensible to the full extent, the same item *all* can be applied to denote the full extent of a given quality. In this case, *all* takes a singular count noun to indicate the whole amount of a quality.

A similar point can be made in the following contrast:

- (43) a. Cathy is all heart.
 b. Cathy and Mary are all {heart/*hearts}.

In (43), *heart* denotes a class of kind persons, and stands for kindness, which is an inherent quality. The *heart* in this sense is modified with *all*, and remains singular with a plural subject, as in (43b). Thus, we can set up a triangular relationship for this type of inherent quality NP: (i) nouns that denote a class-membership, (ii) singular NPs modified with *all*, and (iii) the predication-type in which the inherent quality for a member of a class is intensified to the full extent.

9.3. Complex Inherent Quality NPs

So far in this section, we have been concerned with simple singular NPs. Next, I will show that the analysis of simple singular NPs can be carried over to an analysis of complex singular NPs. We are now in the position to combine the grammatical properties of inherent quality NPs with those of the superlative construction to make sense of definite complex NPs of the following type:

- (44) a. Tom Hanks provides the voice for Andy's favourite toy, Woody, a floppy old cowboy, and it is a perfect fit, if only because it's a logical extension of his role in *Big*, which brought out the boy in him and asked him to play with toys. (Brit.)
 b. Shake off your responsibilities and take time to rediscover the child in you. (BNC)

It is clear that *the boy* in (44a) cannot be given the reference-to-a-single-entity reading, because that reading would result in the impossible situation whereby there were a person denoted by *the boy* inside the person denoted by *him*. Instead, this NP receives an inherent-quality-oriented reading whereby *boy* describes an inner aspect of a person, and *the* marks the full extent to which that person can express the inner aspect through his act. Here the definiteness involved is a case of Scalar Uniqueness.

Consider the following contrasts in acceptability:

- (45) a. Shake off your responsibilities and take time to rediscover {the/*a} child in you.
 b. Let's shake off our responsibilities and take time to rediscover the

{child/*children} in us all.

This situation is reminiscent of the use of the singular NP in (42b), where it expresses the quality shared by plural entities. Moreover, the relation between the head NP and the NP in the prepositional phrase reminds us of the relativized NP in (24b). Although they have the same referent, the two NPs differ in predicativity. The second NP is used to identify a particular entity without describing it, but the first NP describes an inner quality of that entity.

This type of complex NP shares grammatical properties with two constructions. It shares the sense of full extent with the amount relative construction. It also shares the sense of inherent quality with inherent quality NPs. Thus, it is always definite and remains singular. This accounts for the fact that the singular form wins over the plural form in (45b), where the plural entities referred to by *our* and *us* are involved.

10. Concluding Remarks

In this article, we discussed the versatility of the NP with singular count noun head. Although singular NPs basically have the reference-to-a-single-entity reading, there are a number of factors which contribute to extension of their predicativity; numeral adjectives, superlatives, scalar qualities, and *all* associated with predicate NPs. These factors serve to add the extensibility sense to singular NPs. Thus, singular NPs allow of the entity-oriented, quantity-oriented, and quality-oriented readings. Thanks to this versatility, they can enter into various kinds of predication-types. In this sense, singular NPs are higher in predicativity than NPs of other forms. I also pointed out that the extension of the singular NP's predicativity cannot reach to the variety-sense, which can be expressed by plural and mass NPs. I adopted the triangular relationship between a noun's sense, the form of an NP, and the type of predication or construction in which this NP is used, in order to describe the correspondence between NP forms and predication-types. All these arguments were cited in support of Principle (25).

NOTES

* This article is developed from portions of Nishida (1999). There are several overlaps between the dissertation and the present work, but the arguments and data were thoroughly reworked for this work. In developing the predicativity-based account of NPs, I was inspired by Kazuo Kato's important comment on my paper read at the 6th annual meeting of the Society of English Grammar and Usage, held at Kyoto University of Foreign Studies on October 17th, 1998. My special thanks are due to Michael Penn, who has kindly acted as an informant. I am grateful to Graeme Spafford too. I am much indebted to the anonymous *TES* reviewers for their comments and discussions. All remaining inadequacies are my own.

¹ In Nishida (1999), I argued that the basic meaning of definiteness is uniqueness, but the uniqueness has three subtypes, i.e. Referential Uniqueness, Scale Uniqueness, and Kind Uniqueness. The classification depends on the functional domain to which the descriptive content of an NP is uniquely applied. Referential Uniqueness is a sign of identification of something particular, Scale Uniqueness a mark of the full extent to which something extensible exists, and Kind Uniqueness a representation of a regularity unique to a range of referents. Kind Uniqueness is exemplified by definite NPs in generic use, as in *the bee* in *The bee has a complex social system*.

² There is a constraint on the variety-related repetition. Quirk et al. (1985:981) note that the variety-sense is available when the repetition is once. When it is made more than once, as in (ia), the repetition will express just an intensification of quantity.

- (i) a. We saw dogs and dogs and dogs all over the place.
- b. There was nothing but rain, rain, rain from one week to the next.

In (ib), coordination is made without the use of *and*, and this too results in intensification of quantity; the variety-sense is not available.

Principle (25) is able to account for the fact that the NP form that expresses the variety-sense has to follow a specific coordination format. There is a wide range of forms to express quantity: plural NPs, mass NPs, singular NPs modified with *every*, coordination with or without *and*, etc. This is because this predication-type is not specific. However, to express a variety is a specific predication-type, and so the expression for it has to follow a specific format.

Levinson (2000:151f.) offers a similar analysis of the variety-related repetition. To use Levinson's terms, the variety-related repetition is a "marked expression" in comparison to "unmarked expressions" in which the repetition of the same NP does not take place. He argues that the use of a marked expression indicates that some nonstereotypical situation is described. In this article, I leave open the possibility that the present predicativity-based account can be further developed by using the generalized conversational implicature in the sense of Levinson (2000).

³ In this article, we are concerned only with the relativized constructions, and not with reconstructing the process of relativization itself. The latter question will have to do with the fact that many of the relativized constructions do not have their supposed base clauses. For example, the superlative construction in section 7 does not exactly correspond to the supposed base *there*-construction. As Rando and Napoli (1978:301) point out, *there*-constructions do allow definite superlative NPs, but such definite NPs typically carry an exclamative sense. They observe that the following sequence of sentences is fully acceptable, because a definite NP of this type does not imply the uniqueness of a referent denoted by that NP.

(i) There's the strangest bird in the cage. And there's an even stranger one in the back room.
This means that there is no simple correspondence between the superlative construction and the definite superlative NPs in *there*-constructions, which, at present, I have to relegate to my future study.

⁴ Oehrle (1977:323) observes that there are a set of "comparative" structures which are expressed

specifically by indefinite singular NPs with *a*. For example, *much of* can be used only with *a*-singulars in the sense of ‘amount of a quality.’ It can be used with bare mass NPs, but in this case, it means ‘amount of a quantity.’ It cannot be used with plural NPs.

- (i) a. How much of a doctor is he exactly?
- b. (*)How much (of) water is that? (acceptable in the sense of quantity)
- c. *How much (of) doctors are they?

The comparative structures expressed only by *a*-singulars are characteristically concerned with the inner qualities of a referent, rather than qualities given to a referent by comparison with other referents. This quality-oriented use of *much of* is also found in (40a), providing additional support for the inherent NP status of *an eye*.

⁵ The analysis of singular body-part NPs in terms of inherent quality also applies to *a nose* in the sense of instinctive ability to find something. For example:

- (i) a. She’s got funny eyes and a big nose. [COBUILD]
- b. Gergen had a great sense of news, a good nose for trends, and a wide range of contacts.
 [COBUILD]
- c. . . . since they’re not merely ‘buying’ but ‘finding,’ they tend to develop a nose for hidden treasures. (BNC)

One person has only one nose and a singular NP is expected to denote this body-part, as in (ia). Except for the presence of the complement introduced by *for*, no formal distinction may be present between a reference-to-a-single-entity reading and a quality-oriented reading in singular contexts like (ia) and (ib). However, the inherent quality sense is distinguished from the reference-based sense in that it remains singular in a plural context such as (ic), in which multiple persons are described as having the quality expressed by the singular NP.

REFERENCES

- Allan, Keith (1980) “Nouns and Countability,” *Language* 56, 541-567.
- Bolinger, Dwight (1971) “Semantic Overloading: A Restudy of the Verb *Remind*,” *Language* 47, 522-547.
- Bolinger, Dwight (1972) *Degree Words*, Mouton, The Hague.
- Bresnan, Joan W. (1973) “Syntax of the Comparative Clause Construction in English,” *Linguistic Inquiry* 4, 275-343.
- Carlson, Gregory (1977) “Amount Relatives,” *Language* 53, 520-542.
- Fauconnier, Gilles (1975) “Pragmatic Scales and Logical Structure,” *Linguistic Inquiry* 3, 353-375.
- Gary, Edward N. (1979) *Extent in English: A Unified Account of Degree and Quantity*, Doctoral Dissertation, University of California, Los Angeles.
- Grosu Alexander (1996) “The Proper Analysis of “Missing-P” Free Relative Constructions,” *Linguistic Inquiry* 27, 257-293.

- Ikeuchi, Masayuki (1985) *Meishiku no Gentei Hyogen*, Taishukan, Tokyo.
- Nishida, Koichi (1999) *Referential Properties of Noun Phrases and a Grammar of Copular Sentences in English*, Doctoral Dissertation, University of Tsukuba.
- Levinson, Stephen (2000) *Presumptive Meanings: The Theory of Generalized Conversational Implicature*, MIT Press, Cambridge.
- Oehrle, Richard T. (1977) "Comments on the Paper by Selkirk," *Formal Syntax*, ed. by Peter W. Culicover, Thomas Wasow, and Adrian Akmajian, 317-325, Academic Press, New York.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik (1985) *A Comprehensive Grammar of the English Language*, Longman, London.
- Rando, Emily and Donna J. Napoli (1978) "Definites in *There*-Sentences," *Language* 54, 300-313.
- Reed, Ann (1982) "Predicatives and Contextual Reference," *Linguistic Analysis* 10, 327-359.
- Shi, Ziqiang (1990) "On the Inherent Aspectual Properties of NPs, Verbs, Sentences and the Decomposition of Perfectivity and Inchoativity," *Word* 41, 47-67.
- Vendler, Zeno (1967) *Linguistics in Philosophy*, Cornell University Press, Ithaca.
- Wierzbicka, Anna (1988) *The Semantics of Grammar*, John Benjamins, Amsterdam.

DATA SOURCES

- Cambridge International Dictionary of English* (1995) Cambridge University Press, Cambridge [CIDE].
- Collins Cobuild English Dictionary* (1995) Harper Collins, London [COBUILD].
- The Kenkyusha Dictionary of English Collocations (1995) Kenkyusha, Tokyo [COLLOCATIONS].
- The British National Corpus [<http://info.ox.ac.uk/bnc/>] (BNC)
- The CobuildDirect corpus [<http://titania.cobuild.collins.co.uk/>] British books, ephemera, radio, newspapers, magazines. (Brit.)

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