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Professor Quine on Japanese Classifiers*

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1 Introduction

I would like to begin this talk with expressing my feeling of gratitude towards Professor Quine.   When I was a beginning student in philosophy a quarter century ago, there came out a Japanese translation of his collection of papers *From A Logical Point of View*.   It became one of the few books I read again and again throughout my student years.   At that time I never imagined that one day I myself would make a new translation of that marvelous book.   Translating the book I sincerely admire has been a very enjoyable and exciting experience.   It goes without saying that I learned a lot from the experience.   It is amazing that the papers written originally almost a half century ago still contain so many fine things that stimulate us to think fresh thoughts.

One of the papers collected there is famous "On What There Is."   Beginning with this paper, Professor Quine has embarked on his ontological investigations which have reinstated the word "ontology" into the mainstream of contemporary analytical philosophy.   One of the high points in these fertile investigations of Professor Quine is a lecture given in 1968 entitled "Ontological Relativity," which interweaves many Quinean themes in a masterly way.

In the beginning part of "Ontological Relativity" Professor Quine has made it clear that his thesis of the indeterminacy of translation applies to reference (or, extension) as well as to meaning (or, intension).   The famous case of *gavagai* in *Word and Object* turns out to be a case of the inscrutability of reference: *gavagai* can be translated equally well as "rabbit", "undetached rabbit part," or "rabbit stage"; what should be emphasized here is that, in Professor Quine's words, "they differ not only in meaning; they are true of different things."[1]

However, it seems that Professor Quine felt that this artificial example was not convincing enough to show that the inscrutability of reference is a widespread and rather commonplace phenomenon.   Hence, an example of translating Japanese

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1) W.V.O.Quine, *Ontological Relativity and Other Essays*. 1969.   Columbia University Press. p. 35.   I should add that Professor Quine now seems to prefer "indeterminacy of reference" to "inscrutability of reference."   See W.V.O. Quine, *Pursuit of Truth*. Revised Edition. 1992.   Harvard University Press. p. 50.

classifiers into English.[2]

There are at least three reasons for me to take up again the example of Japanese classifiers: firstly, this seems to be a fitting subject for this occasion and this place; secondly, as this example was cited by Professor Quine as a concrete example that factually illustrates his thesis of inscrutability (or indeterminacy) of reference,[3] it merits a rather detailed examination by one of the "natives"; thirdly, if we want to apply the standard logic to arguments expressed in Japanese, we have to translate Japanese sentences containing such classifiers into the canonical notation and this is the same kind of task Professor Quine considered in a few pages of "Ontological Relativity."

2   Two Accounts of a Japanese Common Noun and Inscrutability of Reference

This time the task Professor Quine sets to his field linguist is to translate a Japanese phrase consisting of a numeral (or, in order not to beg the question, a numerical expression), a classifier, a particle, and a common noun such as *san* (a numerical expression meaning three)-*tou* (a classifier suitable to some kinds of animals)-*no* (a particle that roughly corresponds to "of")-*ushi* (a common name meaning ox or oxen) into an English phrase.

Professor Quine suggests that there are two different ways of translating such a phrase into English. Their chief difference lies in the way they construe a Japanese common noun such as *ushi*. Corresponding to the different construals of a common noun, we have to adjust an interpretation of a classifier. Let me summarize these two ways of interpreting the Japanese phrase in question.

(A) A Japanese common noun such as *ushi* is an individuative term. The first expression such as *san* is only a part of a numeral and together with a classifier such as *tou* it makes up a numeral suitable to the kind of objects which are in the extension of the succeeding noun.

(B) A Japanese common noun such as *ushi* is not an individuative term, but a mass term. The function of a classifier such as *tou* is to make an individuative term out of a non-individuative term (with the help of a particle *no*). This time an expression such as *san* is a full numeral applicable to a complex individuative term *tou-no-ushi*.

And, Professor Quine says that there is no question of right and wrong between the two accounts, as both fit all verbal behavior equally well.[4] Let me quote a crucial passage:

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[2] *Ontological Relativity and Other Essays.* pp. 35-38.
[3] *Pursuit of Truth.* p. 50.
[4] *Ontological Relativity and Other Essays.* pp. 37f.

Whether that third Japanese word [= *ushi*] is itself true of each ox, or whether on the other hand it is a mass term which needs to be adjoined to the classifier to make a term which is true of each ox—here is a question that remains undecided by the totality of human dispositions to verbal behavior. It is indeterminate in principle; there is no fact of the matter.[5]

When I read this passage a long time ago, my first reaction was that of disbelief. Of course, Professor Quine is not suggesting that we should construe a Japanese noun *ushi* as a mass term; he is only pointing out a possibility of so construing. Yet, it seemed to me a very remote possibility: am I talking about the whole herd of oxen scattered all over the world whenever I use the word *ushi*? Am I doing that, even when I think I am talking about my pet ox I own?[6] Or again, aren't we conscious well enough of a distinction between an ox, which appears to us as having a definite shape and size, and water, which has no definite shape or size by itself?

However, before long I realized that what I have in mind or rather what I think I have in mind when I utter a word is irrelevant; to think it is relevant is just a myth of museum Professor Quine had demolished so skillfully in the preceding pages of that same essay. This realization forced me to think about semantics of a common noun in Japanese, and that has led me to see that in Professor Quine's position there might be more reason than I saw. However, I think each of the two accounts of a Japanese common noun Professor Quine has offered has its own difficulty as it stands. I would like to explain why I think so and hope to improve Professor Quine's accounts a little bit.

3   A Japanese Common Noun: an Individuative Term or a Mass Term?

Could there be any purely grammatical features we can rely on to distinguish an individuative term from a non-individuative term? As for a language like English, the distinction between a count noun and a mass noun is said to correspond to the one between an individuative term and a non-individuative term. Count nouns like "apple" have both a singular form and a plural form; they can be modified by counting phrases like "three"; they occur with the quantifiers "each," "every," "many," "few" and the indefinite article "a." On the other hand, mass nouns like "water" have no singular/plural distinction; they can be modified by measurement phrases like "liters of"; they occur with the quantifiers "much" and "little."[7]

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[5] *Ibid.* p. 38.

[6] Though I have never owned an ox in my life, nor is it likely for me to own one someday.

[7] This is the view cited as "the usual view" in F.J. Pelletier and L.K. Schubert, "Mass Expressions" in D. Gabbay and F. Guenthner (eds.), *Handbook of Philosophical Logic.*

It seems that every feature listed above is not applicable to Japanese. In the first place, Japanese has no singular/plural distinction: we use the same form of a noun whether it is true of a single thing or many things; there is no agreement of number between a subject and a verb. In the second place, we use the same quantifier *takusan* meaning both 'many' and 'much'; similarly, another quantifier *sukoshi* means both 'few' and 'little'; we don't have articles either.

The only remaining clue is to what sort of modifying phrases a noun is susceptible, that is, whether a noun is susceptible to counting phrases or measurement phrases. However, a Japanese phrase that expresses quantity has the same syntactic form whether it means 'three apples' or 'three liters of water,' namely, a numerical expression followed by a classifier. Thus, Professor Quine was perfectly right when he seized on this category of Japanese expressions in order to consider whether a Japanese common noun is an individuative term or a mass term.

In the relevant pages of "Ontological Relativity," Professor Quine considers one particular type of construction involving a classifier, namely, that consisting of a numerical expression, a classifier, a particle, and a common noun in that order. The whole phrase constitutes a noun phrase. Let me call this "Construction α." An example is the following:

(1)	*san*	*tou*	*no*	*ushi*
	three	head	of	ox
	numerical expression	classifier	particle	common noun

Another construction, which I will call "Construction β" is also a construction to make up a noun phrase with the same meaning, but the order of component expressions is different. An example is:

(2)	*ushi*	*san*	*tou*
	ox	three	head
	common noun	numerical expression	classifier

"Ox" is a typical individuative term in English. We can use both constructions in the same way for "biiru" whose English counterpart is a typical mass term "beer."

(3)	*san*	*bon*	*no*	*biiru*
	three	bottle	of	beer
	numerical expression	classifier	particle	common noun

(4)	*biiru*	*san*	*bon*
	beer	three	bottle
	common noun	numerical expression	classifier

With these examples, I would like to explain what I think are the difficulties with Professor Quine's two accounts (A) and (B).

Volume IV. 1989. D. Reidel. p. 328.

The difficulty with account (A) is simple: if we wish to give the same semantical account to expressions with the same syntactic sturucture, this will not work. According to account (A), *san* is a part of a numeral and only with a classifier it makes up a "declined numeral"[8] ; this works well with (1) and (2), but, with (3) and (4), what results is something like "three beer" which is not right as a translation of the Japanese phrase in question; what it refers to is three bottles of beer, not three glasses of beer for which we use a classifier *hai/bai* like *san bai no biiru*, nor three barrels of beer for which we use *taru* like *san taru no biiru*.

This means that we have to consider seriously the possibility of adopting account (B) for a Japanese common noun, contrary to my first expectations. Still, the difficulty about account (B) I feel now is connected with my earlier misgivings with it: this account offers no explanation for the fact that we are conscious of the big difference between a noun such as *ushi* and a noun such as *biiru*; in a word, even in Japanese there is a distinction between an individuative term and a mass term, and its speaker has a mastery of that distinction.

4   Individuative/Mass Distinction among Japanese Common Nouns

I think it is necessary to give some account which is designed to show whichever source this distinction among Japanese common nouns comes from. If we are no longer satisfied with the myth of museum, this account should be given in terms of some recognizable features found in our use of relevant expressions. For this purpose, I would like to offer here two kinds of considerations which may enable us to discern the individuative/mass distinction among Japanese common nouns.

Befor doing that, I should remark that we cannnot hope to have an absolutely clearcut distinction here. For any of the following considerations I am going to offer, there are some exceptions which will be mentioned as I go along. And I think it is also the case with any natural language including English.[9]

(i)   In *Word and Object* Professor Quine remarked that individuative terms "possess built-in modes, however arbitrary, of dividing their references."[10]

This should be the clue to spot an individuative term, and I would like to claim that it works well also in Japanese. If a Japanese classifier is a sort of individuative device[11], it is reasonable to expect that we have an individuative common noun if it admits only one individuative device, namely, only one classifier, and this is usually the case with Japanese common nouns. For *ushi* (ox) we use a

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8) *Ontological Relativity and Other Essays*. p. 36.
9) This is amply documented in a survey article by F.J. Pelletier and L.K. Schubert cited above.
10) W.V.O. Quine, *Word and Object*. 1960. The MIT Press. p. 91.
11) To be accurate, a Japanese classifier should be thought as a device for signalling a

classifier *tou* and no other, for *kuruma* (car) a classifier *dai* and no other, and so on. On the other hand, as mentioned before, for *beer* we have a wide variety of classifiers such as *hon/bon, hai/bai, taru*. As *beer* has no built-in mode of dividing reference, we can divide its reference equally well whether we do so by a bottle, by a glass, or by a barrel.

Of corse, there are exceptions. Although *ringo* (apple) is usually regarded as an individuative term and admits only the classifier *ko* when it is used as such, we refer to three slices of an apple by *san* (three) *kire* (a classifier meaning slice) *no ringo* (apple).[12]

(ii) There is a third construction involving a classifier that is a kind of combination of Construction α and Construction β. Let us call this "Construction γ." The following are two slightly different examples of it.[13]

(5)	*kobin*	*san*	*bon*	*no*	*biiru*
	small bottle	three		of	beer
	common noun	numerical expression	classifier	particle	common noun

(three small-sized bottles of beer)

(6)	*ushi*	*san*	*tou*	*bun*	*no*	*niku*
	ox	three	head	amount	of	meat
	common noun	numerical expression	classifier		particle	common noun

(the amount of beef equal to three oxen)

The first thing that should be noticed about Construction γ is that, except word order, it is very similar to a corresponding English construction, which is a typical device to make an individuative term out of a mass term. Just as some individuative term has to be mobilized for this purpose in English, we usually have an individuative term in the position of the first noun of Construction γ. So, if a Japanese common noun can occur in this position, we can conjecture that it is an individuative term. Similarly, the position of second common noun in Construction γ is usually taken by a mass noun.

There are exceptions for both positions. An exception that takes a mass term in the first common noun position is:

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mode of individuation, as the individuation itself is done by the noun coming after the classifier. I owe this point to Professor Tanji Nobuharu of Tokyo Metropolitan University.

[12] It is interesting to see that a similar use of an English word "apple" is noted and commented by Professor Quine in *Word and Object* (p. 91).

[13] I am not sure about the right grammatical category for *bun* that appears in the second example. It behaves somewhat like a classifier: though it seems to be a common noun, it is never used in isolation.

(7)   *biiru*   *san*   *bon*   *bun*   *no*   *karorii*
        beer   three   bottle   amount   of   calorie
                          (the amount of calorie equal to three bottles of beer)

An exception that takes an individuative term in the second common noun position is:

(8)   *kasya*   *san*   *dai*   *bun*   *no*   *ushi*
        freight car   three   (classifier)   amount   of   ox
                          (the oxen that would fill three freight cars)

5 Inscrutability of Reference Again

Then, what would be my account of a Japanese common noun like ? It would be a mixture of Professor Quine's two accounts: for an individuative noun like *ushi* I offer something like account (A), and for a mass noun like *biiru* I offer something like account (B). I know well that this is not a very exciting solution and surely you would feel somehow cheated.

For my defence, I would like to say that what a classifier does chiefly is just that, namely, classifying things. An individuative noun like *ushi* takes only one sort of classifiers, and it means that there is only one way of dividing reference; so, we need not ascribe the job of individuating to a classifier. On the other hand, in the case of a mass noun like *biiru*, it can take a variety of classifiers; as different classifiers divide reference differently, a classifier is here doing a double duty, namely, that of classifying and individuating.

Another explanation might be to make a hypothesis to the effect that expressions like *san bon no biiru* [(3)] and *biiru san bon* [(4)] derive from expressions like *kobin san bon no biiru* [(5)] : this means that, for a mass noun like *biiru*, Construction γ precedes to Construction α or Construction β. In Construction γ, we typically use an individuative noun like *kobin* with its classifier in order to make a complex individuative term out of a mass term. So, the role of a classifier that appears in Construction γ is only that of classifying, while the job of individuating is done entirely by an individuative noun that comes before a pair of a numeral and a classifier. In this way, we need not assign a double duty of classifying and individuating to a classifier that occurs with a mass noun.

For some time, I am sure, you are expecting that I conclude my talk with some comments on the relevance of the discussion so far to Professor Quine's thesis of inscrutablity of reference. So I feel I should say something about that.

I would like to believe that an examination of Japanese classifiers undertaken here has shown that there are various subtle ways of signalling an individuative/ mass distinction in Japanese, even though it has no features standardly relied on to

discern the distinction in a language like English.   I also believe that a typical use of a Japanese word *ushi* should be construed as the use of an individuative term, according to the clues given in various Japanese constructions.   However, this does not mean that the thesis of inscrutability of reference is not true or is not justified. In his talk today, Professor Quine has talked about the idea of proxy function, which seems to be applicable to any language in a general way.   It might be possible to establish the thesis of inscrutablity of reference by means of abstract device like proxy function.   It is just that I am doubtful of a claim Professor Quine put forward in his *Pursuit of Truth*, namely, the claim that an example of Japanese classifiers illustrates factually the thesis of inscrutablity of reference.

Postscript

About a week after the workshop at Kyoto, I was pleasantly surprised by finding a letter from Professor Quine in my mailbox. In it, he kindly commented on my paper and gave me a permission to quote freely from it.   Here is the main part of his letter:

> My trivial argument from proxy functions established my thesis of indeterminacy of reference, but I was casting about for a natural example in the translation of actual languages.   I noted two possible accounts of the Japanese classifiers, and suggested that either could be reconciled with usage by a compensatory reconstrual of general terms; namely, either a mass term or as individuative. Imposing then my treatment of a mass term as naming the mereological sum of its extension, I inferred an indeterminacy of reference: reference to each denotatum of an individuative term versus reference to their mereological sum.
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> What is at fault, as you point out, is my excessive freedom in treating a word as a mass term.   It is reasonable to do so only if, like 'water' and unlike 'cattle,' it has no one built-in principle of individuation.   Adherence to this restriction, which I applaud on sight, obstructs one of my two proposed accounts of the Japanese classifiers, and therewith my purported example of indeterminacy of reference.
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> The indeterminacy of reference is still clinched, of course, by the proxy functions.   What is lost is my example from actual translation.   Nor was the error due to the sketchiness of my *Nihongo* ;   for it recurred in those same pages: in my calling 'cattle' a mass term.   By your good rule of built-in individuation, 'cattle' is an individuative term, semantically plural despite its singular form.