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SEMANTIC AND PRAGMATIC FACTORS IN THE INTERPRETATION OF CONVERSIONS OF COUNT NOUNS INTO MASS NOUNS IN FRENCH

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Abstract: In many languages, common nouns are divided into two morpho-syntactic subclasses, count nouns and mass nouns (the latter, but not the former, being invariable in grammatical number). Yet in certain contexts, count nouns can be used as if they were mass nouns. This linguistic phenomenon is called *conversion*. In this paper, we consider the conversions of count nouns into mass nouns in French. First, we identify a general semantic constraint that must be respected in these conversions, and various cases in which a count noun can be used as a mass noun. Second, we examine the effects that semantic and pragmatic factors play in their interpretation. More precisely, we try to determine whether there are specific conventions for interpreting count → mass conversions in French. Several arguments are discussed, having to do with considerations of theoretical economy, so-called ‘ambiguity tests’, differences among languages as to what interpretations are available for conversions, and the strong feeling of conventionality of some uses. This leads us to postulate the existence of a number of specific conventions for interpreting conversions in French.

In French, some common nouns, like *chat* (cat) or *kangourou* (kangaroo), can be used freely with the determiners *un* (a) and *des* (plural *some*) but more difficultly with *du* (singular *some* or noun used bare). Other nouns, like *eau* (water) or *lait* (milk), are normally used with *du* but cannot be used freely with *un* or *des*. These nouns form two morpho-syntactic sub-classes of common nouns, distinguished by their respective distributions; cf. Galmiche (1989), Kleiber (1990)¹. They have been respectively called count nouns and mass nouns.

Now, count nouns can, in certain contexts, be used as if they were mass nouns, e.g. *Vous me donnerez deux kilos de kangourou* (Give me two kilos of kangaroo). One then talks of conversion. Conversion is a common grammatical possibility, whereby a member of a grammatical category is used in the morpho-syntactic environment characteristic of another grammatical category. For instance, proper names can be used as common nouns: *Le professeur a deux Picassos dans sa classe* (The professor has two Picassos in his class)².

In this paper, we consider the conversions of count nouns into mass nouns in French. First, we identify a general semantic constraint that must be respected in these conversions, and various cases in which a count noun can be used as a mass noun. Second, we examine the effects that semantic and pragmatic factors play in their interpretations. More precisely, we try to determine whether there are specific conventions for interpreting count → mass conversions in French, and, more essentially, what types of argument can be brought to bear on this question. Similar issues would arise were one to consider the conversions of mass nouns into count nouns; lack of space prevents them to be studied here.

So let us start by describing the semantic constraint that must be respected in any count → mass conversion. A mass noun, but not a count noun, is required to *refer*

¹ Or, for English, Gillon (1992), among others.

cumulatively (Quine 1960). That is, whenever a mass noun applies to each of two things, it applies, in the same circumstances, to the two things considered together. Suppose, for instance, that Tom has some furniture, and that Pauline, who lives in a different apartment, also has some. The furniture of Tom and the furniture of Pauline can be considered together, and the resulting entity can be felicitously described as *the furniture of Tom and Pauline*. The mass noun *furniture* thus satisfies the property of cumulative reference. In terms of a noun's denotation, cumulative reference translates as follows: a mass noun (but not a count noun) is required to have a denotation with a sup-lattice structure (Link 1983). Now, a mass expression resulting from conversion should behave semantically like a genuine mass expression. Hence the *general semantic constraint*: a mass expression resulting from conversion should apply to things related to one another in a sup-lattice fashion.

This constraint being brought to light, let us get an idea of the various cases in which a count noun can be used as a mass noun. The Appendix displays both typical and more unconventional interpretations of nominal expressions like *du lapin*. Some of these examples are inspired by Martin (1983), Galmiche (1989), Kleiber (1990) and Englebert (1996)³; the others are original. Besides our first example, we also find A.iii, *Pour votre manteau, désirez-vous du lapin ou du kangourou ? (For your coat, do you want rabbit or kangaroo?)*, or A.v, *Ecrasant plusieurs animaux, le camion laissa après son passage du lapin / du kangourou au milieu de la route (Crushing several animals, the truck left rabbit / kangaroo in the middle of the road when it passed)*. And we also have, say, B, *Il y en a, du lapin / du kangourou, par ici ! (*There really is rabbit / kangaroo over here!)* [In this paragraph, as in the rest of this paper, the translations indicated are literal.]

² Cf. Kleiber (1994); or Gillon (1998) concerning English.

³ Or for English by authors like McCawley (1975), Mufwene (1984), Gillon (1998).

Note that the conversion is not due specifically to the determiner *du*: if we replace it by another mass determiner, we have the same effect, as shown in A.ii, *Vous reprendrez bien un peu de lapin / kangourou ?* (Will you take a little more rabbit / kangaroo?) So what is crucial is that a count noun is being used as a mass noun, because it is placed in a morpho-syntactic environment characteristic of mass nouns.

What are the factors involved in the interpretation of count → mass conversions? More precisely, we have seen that there is a semantic constraint that must be respected in all conversions. And cases like A.vii, *Jean utilise toujours du lapin / kangourou quand il veut faire étudier à ses étudiants de l'ADN* (John always uses rabbit / kangaroo when he wants his students to study DNA), show that inferences based on context and general knowledge (that is, pragmatic factors) sometimes play an essential role in the interpretation of conversions. So, besides this semantic constraint and general pragmatic factors, are there specific conventions for the interpretation of conversions in French?

As we see, the behavior of converted expressions can be conceived in two ways. An expression like *du kangourou* may behave like an indexical expression, containing an indexical component that must be contextually filled without clashing with the general semantic constraint. Let us call this the indexical conception. It contrasts with the view that there are specific, default conventions for the interpretation of conversions in French.

Several things should be remarked here. First, expressions like *du kangourou* differ from expressions like *du lapin*. The latter correspond to uses that are extremely frequent, so much so that a form like *lapin* can be considered to have become polysemous, associated with two distinct senses, one for *un lapin*, the other for *du lapin*. This is not the case for *kangourou*, since its mass uses are much rarer. There are, in metropolitan French, a number of words that are like *lapin* in this respect: nouns like *boeuf* (beef), *veau* (veal) and *porc* (pork). All are frequently used in mass contexts to designate meat obtained from the

animal denoted by the count noun. It is these cases (words that have become polysemous, with a change of sense that is regular across these words) that are sometimes described as cases of ‘systematic polysemy’. A better term might be ‘semi-regular polysemy’, for there are many animal nouns, like *kangourou*, *koala* and *giraffe*, that cannot be thought to have become polysemous; if they can be used in mass contexts with the same change of meaning, they are rarely so. From the point of view of acquisition, the realization that polysemous words like *boeuf* and *porc* have two distinct senses (count and mass) might well be the source of the interpretation given to converted expressions with other nouns like *kangourou* and *giraffe*.

Second, conversions are subject to two pragmatic phenomena: blocking, and a requirement of relevance; cf. Copestake & Briscoe (1995), Nunberg (1995). Blocking is the fact that, among nearly synonymous expressions, one may be standardly used and pre-empt the use of other synonymous expressions. For instance, the word *porc* is standardly used in French to talk about meat obtained from the animal, rather than the word *cochon*. This, by the way, is a further indication that *porc* is polysemous between a count and a mass sense, while *cochon* is not.

The requirement of relevance we want to mention is this. Simply put, there must be a relevant relation between what the converted expression designates and what the count noun applies to. A sentence like *Elle aime manger de l'angora* (*She likes to eat angora*) would be strange, because no relevant connection can be easily established between angoras, a very specific type of animal, and types of food. This constraint of relevance [in the sense of Grice (1978) and Sperber & Wilson (1986)] applies more generally to all cases of transfer, that is, cases in which an expression is applied to something other than what it normally applies to. Count → mass conversions are transfers that are morpho-syntactically triggered.

This being said, what criteria may we use in order to distinguish between these alternatives and to identify what specific conventions (if any) French has for interpreting count → mass conversions?

Considerations of theoretical economy—application of Occam’s Razor as modified by Grice (1978): *Do not multiply senses beyond necessity*—may seem to favor the indexical conception, since this conception invokes pragmatic principles, like the Gricean maxims of conversation, that are independently needed to explain other phenomena. But in fact, it is psychologically plausible that a speaker has redundant and heteroclitic knowledge concerning the possible uses of words; cf. Bybee (1988). So the real question is: is there *empirical evidence* suggesting that there are specific conventions for interpreting conversions in French?

A first type of evidence to be discussed is that offered by so-called ‘ambiguity tests’ [Zwicky and Sadock (1975), Cruse (1986), Gillon (1990), Gillon (2004)]. They have been mentioned in connection with this question by Nunberg and Zaenen (1992) and Copestake and Briscoe (1995). But let us show that, in fact, they are not useful here. The most basic ambiguity test is the test of alternate truth value judgments. Consider the French word *avocat*, which designates either a barrister or a fruit, and the sentence *Il y a un avocat dans le frigidaire* (*There is a barrister / fruit in the fridge*). Suppose there only is a fruit in the fridge. Then, under one sense of *avocat*, the sentence is true, while it is false under the other sense. So an ambiguous expression may contribute to reference in different ways and yield alternate truth value judgments for a sentence, depending on which of its senses is selected. And it is often thought, conversely, that alternate truth value judgments of an utterance in which an expression appears are evidence that the expression is ambiguous. Yet, this assumption is false, as we can see directly by considering what happens when we apply it with the expression *du kangourou*. Take a sentence like *Regarde, il y a du*

kangourou ! It seems that, given enough context, it can receive intuitive truth conditions corresponding to any of the types of interpretation listed in our sample. For instance, it could mean kangaroo meat, but also kangaroo DNA. So is the expression *du kangourou* ambiguous between all these interpretations? The answer cannot be a mere ‘yes’, because an interpretation like that mentioning DNA is clearly unconventional. The problem is simply that, as we see here, and as is also independently attested [cf. e.g. Carston (1988)], a sentence uttered with respect to a fixed state of affairs can nonetheless receive different truth conditions when contextual assumptions vary. Thus, alternate truth value judgements need not be evidence that an expression is ambiguous.

What other types of evidence do we have? One is differences among languages with respect to the interpretations of conversions. In French, B-type interpretations, involving collections of things to which the count nouns apply, are available with all count nouns. For instance, *Ce libraire est très spécialisé, il ne vend que du livre d'art et du roman policier* (**This bookseller is very specialized, he sells only art book and detective story*). But in English, they are available only with fish or hunted animals. A sentence like **This year, Grand-Ma planted rose and tomato in her garden* is unacceptable in English, while its counterpart is perfect in French. Why is this so? In the absence of an alternative explanation, the difference is plausibly ascribed to differences between French and English specific conventions for interpreting conversions.

The other type of evidence is the strong felt conventionality of some uses. In our sample, some conversions are clearly unconventional: for instance, A.v, vi and vii. So they cannot correspond as such to conventions for conversion. But others definitely have something conventional in them. If the difference between fresh and cooked meat displayed in A.i and A.ii is unconventional, the interpretation in terms of meat itself seems to be conventional. And so do the interpretations shown in A.iii and A.iv, in terms of fur and skin. And

likewise for the more general A (a mass expression may apply to part of what the count noun applies to), and for B (a mass expression may apply to a collection of things to which the count noun applies). Taken at face value, all this suggests that a French speaker has learnt a number of specific conventions of use for interpreting count → mass conversions.

The question is then: what conventions exactly, stated at which level of generality, has he learnt? Under what bases does a speaker form such generalizations? Let us here essentially raise these questions; they would need to be addressed by psychological studies. But in order to stimulate further discussion of these issues, we shall propose, given our intuitions about the conventionality of several uses, the following conventions, taken to indicate default interpretations.

A mass expression obtained through conversion may apply to:

A) part of what the count noun applies to; furthermore, if the count noun designates a type of animal, then the converted expression may apply to either i) meat, ii) fur or iii) skin obtained from what the count noun applies to;

or B) a collection of things to which the count noun applies.

Finally, another question that should be raised is that of the exact nature of these conventions, not only for count → mass conversions, but also for transfers in general. One might argue that these regularities of interpretation are just a matter of entrenchment and should not be listed: the more frequent an interpretation, the more likely it is to be entertained in the future. We have nothing to say against entrenchment itself; it is a plausible psychological mechanism. But still, we find that the existence of specific conventions of use should be recognized, for two reasons: because of the strong feeling of conventionality of some uses, and because of differences among languages as to what interpretations are available for conversion and when.

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Appendix: A sample of count → mass conversions in French

A mass expression obtained through conversion may apply to:

A) part of what the count noun applies to:

Pour fabriquer ces meubles, il a utilisé du hêtre. (To build this furniture, he used some beech.)

Est-ce que tu as du thym ? (Do you have some thyme?)

*Laisse-moi donc de l'oreiller ! (*Leave me some pillow!)*

• With names for animals, the converted expression may refer more specifically to:

- A.i) fresh meat: *Vous me donnerez deux kilos de lapin / kangourou (Give me two kilos of rabbit / kangaroo),* said to a butcher.

- A.ii) cooked meat: *Reprenez un peu de lapin / kangourou ? (Will you take a little more rabbit / kangaroo?),* said by the host in a diner.

- A.iii) fur: *Pour votre manteau, désirez-vous du lapin ou du kangourou ? (For your coat, do you want rabbit or kangaroo?)*

- A.iv) skin: *Alors, pour vos bottes, est-ce que vous prendrez du crocodile ? (So, for your boots, will you take crocodile?)*

- A.v) substance from the crushed animals: *Ecrasant plusieurs animaux, le camion laissa après son passage du lapin / kangourou au milieu de la route. (Crushing several animals, the truck left rabbit / kangaroo in the middle of the road when it passed.)*

- A.vi) guts: *Rien de tel que du chat / kangourou pour le cordage d'une raquette de tennis (There is nothing like cat / kangaroo for the strings of a tennis racket.)*

- A.vii) DNA: *Jean utilise toujours du lapin / kangourou quand il veut faire étudier à ses étudiants de l'ADN. (John always uses rabbit / kangaroo when he wants his students to study DNA.)*

B) a collection of things to which the count noun applies:

*Il y en a, du lapin / du kangourou, par ici ! (*There really is rabbit / kangaroo over here!)*

*Cette année, Grand-mère a planté de la rose et de la tomate dans son jardin. (*This year, Grand-Ma planted rose and tomato in her garden.)*

*Ce libraire est très spécialisé, il ne vend que du livre d'art et du roman policier. (*This bookseller is very specialized, he sells only art book and detective story.)*