

## Mass nouns, count nouns and non-count nouns: Philosophical aspects

Linguists often distinguish **count** and **non-count** nouns (**count+** and **count-** nouns; **CNs** and **NCNs**, for short). The distinction, though hardly simple, is both exhaustive and entirely natural. In philosophical writings, by contrast, it is more usual to posit a dichotomy of count nouns and **mass nouns** (**CNs** and **MNs**) — a dichotomy which is very commonly (and however vaguely) supposed to be of metaphysical or ontological significance. But this dichotomy, unlike that of **CNs** and **NCNs**, is deeply problematic; here in consequence I speak only of a **supposed** dichotomy of **CNs** and **MNs**, and by the same token, of a **putative** category of **MNs**.

1. *Plural count nouns and non-count nouns.* There is a certain kinship between **NCNs** and plural **CNs**, a kinship which has in recent years attracted some attention; see e.g. Schein (1994). What is less widely appreciated is the basis of this kinship in the actual semantic status of **NCNs**. Laycock (1998) urges that since **CNs**, or their occurrences, are semantically **either** singular or plural, to be **non-count** is simply to be **neither** singular nor plural. **NCNs** are then semantically non-singular, and it is this which underlies their kinship with the plural — plural nouns themselves, self-evidently, are non-singular. But being non-plural, the non-count form is never, unlike that of many plural sentences, reducible to the canonical singular form. The relationships between the semantics of **CNs** and **NCNs** may thus be simply represented in the following tableau (Laycock, 1998):

**Table I**

	1. <b>Singular</b> (‘one’)	2. <b>Non-singular</b> (‘not-one’)
3. <b>Plural</b> (‘many’)		‘things’ ‘apples’ ‘clothes’
4. <b>Non-plural</b> (‘not-many’)	‘thing’ ‘apple’ ‘piece of clothing’	‘stuff’ ‘water’ ‘clothing’

The inclusion of a contrast between ‘clothes’ and ‘clothing’, alongside that between ‘apples’ and ‘water’, serves to emphasize the point that the singular / non-singular contrasts in general (and not simply the singular / plural contrasts) are first and foremost **semantic** as opposed to **metaphysical** or ontic contrasts (it being assumed that the ‘clothes’ / ‘clothing’ contrast itself is purely a semantic one).

NCNs are to be classed as semantically non-singular, simply in virtue of being non-count. And given this, both quantification and denoting which involve such nouns must also be semantically non-singular. In the case of quantification, the non-singularity of NCNs is reflected in their obvious non-acceptance of singular quantifiers — in the fact that we may speak (as with plural nouns) of ‘**all** water’, ‘**some** water’ and ‘**more** water’, but not in the singular of ‘**a** water’, ‘**each** water’ or ‘**one** water’. ‘Any’, ‘all’ and ‘some’ interact with NCNs much as with essentially plural nouns; and ‘All **n** **V** made of polyester’ and ‘The **n** in the warehouse **V** made of polyester’ are related in essentially the same way, whether ‘**n**’ is replaced by ‘clothes’ and ‘**V**’ by ‘are’, or ‘**n**’ is replaced by ‘clothing’ and ‘**V**’ by ‘is’. The implications of the non-singularity of NCNs for the semantics of sentences containing definite descriptions and referential expressions are complex and extend beyond the remit of these brief remarks. However the relatively common **mereological** interpretations of non-count reference take it to be semantically singular, designating individual ‘parcels of stuff’ or ‘quantities’ (see e.g. Bunt, 1985), and the non-singularity of NCNs is evidently not consistent with approaches of this type. Indeed difficulties with the singularity assumption have been noted precisely in relation to Russell’s theory of singular descriptions, which maintains, as he puts it, that **the** ‘in the singular’ involves **uniqueness** (Russell, 1956, 176); see e.g.. Montague (1973) and Laycock (1979).

2. *The concept ‘mass noun’ and its supposed criterion.* Turning now to so-called MNs, perhaps the first use of an expression of the ‘MN’ genre occurs in Jespersen (1924), who writes of **mass words**, contrasting these with what he calls ‘countables’ or ‘thing words’. And the thought that such words have a distinct metaphysical significance receives the following expression in his work:

There are a great many words which do not call up the idea of some definite thing with a certain shape or precise limits. I call these ‘mass-words’; they may be either material, in which case they denote some substance in itself independent of form, such as ... **water, butter, gas, air**, etc., or else immaterial, such as ... **success, tact, commonsense**, and ... **satisfaction, admiration, refinement**, from verbs, or ... **restlessness, justice, safety, constancy**, from adjectives (198).

Subsequent writers typically differ from Jespersen in treating the domain of ‘mass words’ as one of **concrete** nouns exclusively; but insofar as these latter nouns are

concerned, Jespersen's approach would seem to represent the norm. Thus if the question is raised, of what semantic element constitutes the putative MNs as a distinct category of concrete nouns, the answer tends to be that it is precisely some such element of 'form-independence' — an absence of 'criteria of distinctness' (Hacker, 1980) or of a 'boundary-drawing', 'individuating', 'form-specifying' or 'reference-dividing' component in their meaning (Quine, 1960; Chappell, 1971; Talmy, 1978; Langacker, 1987; Jackendoff, 1991; Kleiber, 1997).

In this regard, Quine nicely represents the common view. To learn a 'full-fledged general term' like 'apple' it is not enough, so he remarks, to learn 'how much of what goes on counts as apple': 'we must learn how much counts as **an** apple, and how much as another. Such terms possess built-in modes... of dividing their reference' (91). So-called 'mass terms', in contrast, do not thus divide their reference. Water, Quine writes, 'is scattered in discrete pools and glassfuls..... still it is just "pool", "glassful", and "object", not "water"... that divide their reference' (91). If such a noun is used to individuate a full-fledged, 'substantial' object, it needs an individuating adjunct. There is no learning 'how much counts as **some** water and how much counts as some **more**'; there is no such distinction to learn. Whereas any sum of parts which are each an apple is not another apple, this lack of a boundary-drawing element confers upon the putative MNs what Quine calls 'the semantical property of referring cumulatively' — 'any sum of parts which are water is water', as he puts it. I shall call this widely accepted criterion for distinguishing the putative category of MNs from CNs, in whichever of the various equivalent forms it is fleshed out, the 'no built-in reference-division' (**no-RD**) criterion. The key assumption which underlies the supposed dichotomy of CNs and MNs is, then, that possible borderline cases apart, **there is** a specific and more or less determinate category of concrete nouns which answers to the no-RD criterion — the putative category of MNs, to be precise.

Now while the range of nouns which are categorized as MNs varies significantly from one writer to another, all the nouns which are thus categorized are in fact (and must be) NCNs. But here my concern is not with the nouns themselves; it is just with the putative **category**, as determined by the no-RD criterion, to which they are said to belong. And insofar as the use of 'MN' rests upon this criterion, the contrast of CNs and MNs is quite fundamentally misconceived; the reality is that no such category as that of MNs **exists**. There are, on the contrary, **two** semantically distinct categories of nouns which answer to the no-RD criterion — concrete NCNs and concrete plural CNs (a fact which, given the common non-singularity of these two categories, is not altogether surprising).

3. *An illusory criterion.* While the kinship of the putative MNs with concrete plural CNs is commonly remarked, it is less often noted that the no-RD criterion itself applies

**identically** to the plural nouns. Thus, for instance, although we learn ‘how much counts as **an** apple, and how much as another’, there is no learning ‘how much counts as **some** apples, and how much as **more** apples’ — there is no such distinction to learn. While the singular ‘apple’ applies to just one apple at a time, ‘apples’ sets no limits on what count as apples. It is not the meaning content of the plural noun itself which sets whatever limits there may be; it is contingencies of context, including acts of demonstration — ‘**these** apples’, etc. — which demarcate the subject-matter of a discourse. ‘Apples’ provides no criteria of distinctness or boundaries for what it collectively applies to — it does not, qua plural, carve what it applies to ‘at the joints’. To play the role of designating full-fledged objects each of which **is apples**, ‘apples’, much like ‘water’, needs an individuating adjunct (‘heap of \_\_\_’, ‘bag of \_\_\_’ or the like). Thus if water may be characterised as ‘form-indifferent’, then apples too, collectively, may be so characterised. Much as the water in a glass might be spilled or dispersed and survive, so too might the apples in a bag. And so far as Quine’s ‘cumulative reference’ is concerned, while any sum of parts each of which is **an** apple will not be **another** apple, any sum of parts which are **apples** will simply be more **apples**.

The appearance of a dichotomy between CNs and the putative MNs then arises purely and simply because the chosen occurrences of CNs are **singular** exclusively — plural nouns are nowhere in the picture — and once plural occurrences of CNs are factored in, the supposed dichotomy with CNs just disappears. Insofar as the no-RD criterion is conceived as definitional of the distinctive status of some putative ‘metaphysically interesting’ class of nouns, this putative category of nouns is ill-defined or ill-conceived, and talk of such a category is best abandoned. The only categories which are to be legitimately contrasted with CNs are those of NCNs **as such** and of the various sub-categories of NCNs. And while metaphysically interesting distinctions between CNs and some sub-groups of NCNs certainly do exist — I comment on them briefly in the sequel — such distinctions have nothing to do with the spurious category of MNs. They are not, that is, a function of the no-RD criterion, obtaining as they do between various groups of nouns **all of which** satisfy that criterion. (It is then hardly surprising that what is supposed to count as an MN varies significantly from one sponsor of the concept to another: the no-RD criterion does zero work, and it is rather individual metaphysical intuitions which actually determine whether a given NCN is to be assigned to the putative category or not). What the no-RD criterion reflects is simply the contrast between CNs in the singular, and non-singular nouns altogether generally, whether NCNs or plural CNs. But the central contrast in this domain is rather one between distinct forms of non-singularity, the plural and the non-count; and as such, to repeat, this contrast is purely a semantic one.

The point retains its relevance at the formal level of the contrast between ‘stuff’ and

‘things’ themselves. These words are formally NCNs and CNs respectively; but whereas the contrast of stuff and things is not infrequently treated by sponsors of the ‘MN’ category as if it were a metaphysical distinction, the fact is that ‘stuff’ may be and is applied to **things** without restriction (‘the stuff in the basement’ may just denote a pile of pots and pans, garden tools, old chairs and bicycles).

4. *The non-metaphysical goods.* We are left, then, with an essentially semantic contrast between concrete CNs and NCNs. And what this semantic contrast embodies are distinct modalities for the determination and specification of **amount** or **quantity**. CNs embody one such modality — trivially, that of **counting** through the use of natural number-related words — ‘one horse’, ‘so many things’, ‘too few clothes’, ‘a dozen eggs’, ‘a single professor’, etc.; and in this intuitive sense, counting is applicable to the denotata of CNs **exclusively**. NCNs, by contrast, involve a form of what is naturally called **measurement** — ‘so much cotton’, ‘too much stuff’, ‘so little water’, ‘five tons of clothing’, etc.. And while the denotata of NCNs may be **only** measured and not also counted, measurement as such is applicable to the denotata of both NCNs and CNs alike. We may for instance speak both of ‘75 ccs of water’ and of ‘75 ccs of poppy seeds’, both of ‘5.5 kilos of clothing’ and of ‘5.5 kilos of apples’. Furthermore it seems clear that in contrast with counting, **any** real number can in principle be assigned to the measure of an amount of something. The concept of weight, for instance, is such that it is intelligible to assign a weight of  $n$  kilos (where ‘ $n$ ’ represents an integer), or of  $n \times \pi$  kilos, to a quantity of snow (rice, apples, clothing, underwear, water, etc.).

Intuitively, then, counting may be described as the determination of ‘discrete’ or ‘discontinuous’ quantity and measuring the determination of ‘continuous’ quantity. Of the two, discrete quantity seems privileged: there is exactly one non-relative way of determining the quantity of, say, eggs in a carton, which is precisely to count them. But there is no such unique way of determining, say, the quantity of cotton in a warehouse; this might be done, e.g., by volume, or by weight, or indeed by counting the number of bales; and these different measures cannot be expected to be correlated in any uniquely determinate way.

The contrast of discrete and continuous quantity is not directly ontological — it is not a matter of whether something consists of discrete ‘bits’ (visible or otherwise) or not. We may count planets, eggs or horses to determine their number; we may weigh apples, snow or clothing to determine their amount. The non-ontic nature of the contrast is perhaps especially striking in the juxtaposition of such words as the CN ‘clothes’ (‘boots and shoes’, etc.) and its cognate collective NCN ‘clothing’ (‘footwear’, etc.). Though ‘clothing’ represents continuous quantity and ‘clothes’ discrete quantity, to say that **there is** clothing here or there is to say no more than that **there are** clothes here or there. In this respect, there is good sense in the remark of Quine (1960): ‘The contrast

lies in the terms and not in the stuff they name... “shoe”... and “footwear” range over exactly the same scattered stuff’ (91).

The contrast ‘lies in the terms’, in that while there are **units** of clothing, furniture, etc. (individual pieces of clothing, pieces of furniture, etc.) — indeed while collective nouns like ‘clothing’ and ‘furniture’ might be said to be ontologically **equivalent** to cognate CNs — such NCNs are no less **semantically** non-count than non-collective nouns like ‘water’ and ‘mashed potato’. Thus although there is a straightforward sense to talk of the smallest **number** of clothes — a single item of clothing — there is no good sense to talk of the smallest **amount** of clothing — is one woollen winter coat the same amount of clothing as a single nylon stocking? In absolute terms, I’ve suggested, talk of amounts in relation to the denotata of NCNs (collective or otherwise) is simply ill-defined; and relative to some particular dimension such as weight or volume, there is no semantic rationale for specifying minimum amounts.

But although not directly ontological, the contrast of discrete and continuous quantity involves the **possibility** of certain ontic contrasts. Counting truistically involves discrete units; and while what is measured may consist of discrete units, measurement as such does not require it, and there are ontic category-differences **within** the semantic category of NCNs. Thus, contrast the two groups of NCNs (a) ‘furniture’, ‘footwear’ and ‘clothing’ and (b) ‘rubble’, ‘sand’ and ‘snow’, with what may be called the ‘pure’ NCNs of group (c) ‘mashed potato’, ‘wine’ and ‘water’. The collective nouns of group (a) may be said to be **object-involving**, in that they are semantically ‘atomic’ — there are units of furniture, clothing, etc., not divisible into smaller units of furniture, clothing, etc. It is part of the **meaning** of such an NCN that like a typical CN, it ranges over discrete pieces, units or elements of what the NCN denotes; indeed the very **identity** of some furniture is not to be distinguished from that of some pieces of furniture. For this reason, the identity of the denotata of group (a) nouns is independent of the identity of the materials of which those denotata are composed; some furniture can survive some loss of constituent materials — wood, cloth, stuffing etc. — and remain the same (arguably, indeed, it is conceivable that all of the materials of some furniture be replaced over time while the furniture retains its identity). But the same can hardly be said of the nouns in groups (b) and (c).

Now group (b), though not thus atomic, are object-involving in that they may be said to be semantically **particulate**: it’s part of their meaning that what these words denote consists of discrete grains, flakes, bits, etc. etc. — the difference being that the identity of some sand (snow, rubble, etc.) is **not** dependent on that of certain particular grains, flakes or bits; it may be further crushed or pulverised and yet remain the same. In contrast with groups (a) and (b), however, no such object-involving concepts enter into the meanings of the group (c) terms. Whereas, for instance, to say that there is furniture

or clothing in some region is to say that there are constituent pieces or units of furniture or clothing in that region, to say that there is wine or mashed potato in some region is not to say that there are objects characterisable as 'pieces' or 'units' of wine or mashed potato in that region. In the nature of the case, there is here no comparable notion of a constituent piece or unit.

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**Note:** This bibliography aims to document only some of the most seminal, influential or widely cited works on the topic. For an extended review of many of the issues here involved, see particularly the entry 'Nouns, Mass and Count', forthcoming in *Encyclopedia of Philosophy*, 2nd edition, edited by Donald M. Borchert, MacMillan Reference, USA, 2005

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