Understanding English non-count nouns and indefinite articles

Takehiro Tsuchida

Digital Hollywood University

December 20, 2010

Introduction

English nouns are said to be categorised into several groups according to certain criteria. Among such classifications is the division of count nouns and non-count nouns. While count nouns have such features as plural forms and ability to take the indefinite article *a/an*, non-count nouns are generally considered to be simply the opposite. The actual usage of nouns is, however, not so straightforward. Nouns which are usually regarded as uncountable sometimes take the indefinite article and it seems fairly difficult for even native speakers of English to expound the mechanism working in such cases. In particular, it seems to be fairly peculiar that the noun phrase (NP) whose head is the abstract 'non-count' noun *knowledge* often takes the indefinite article *a/an* and makes such phrase as *a good knowledge of Greek*. The aim of this paper is to find out reasonable answers to the question of why these phrases occur in English grammar and thereby to help native speakers/teachers of English and non-native teachers alike to better instruct their students in

the complexity and profundity of English count/non-count dichotomy and actual usage of indefinite articles. This report will first examine the essential qualities of non-count nouns and indefinite articles by reviewing linguistic literature. Then, I shall conduct some research using the British National Corpus (BNC), focusing on statistical and semantic analyses, before finally certain conclusions based on both theoretical and actual observations are drawn.

Non-count nouns

Greenbaum and Quirk (1990: 70) state that, apart from the distinctions between concrete and abstract nouns and between proper and common nouns, "we have the further distinction between *count* (also called 'countable') and *noncount* (also called 'mass') nouns." In order to illustrate the difference between count and noncount nouns, Greenbaum and Quirk (1990: 71) present five determiner constraints (a)–(e): "Can the singular noun occur (a) without a determiner? (b) with the definite article? (c) with the indefinite article? (d) with the partitive *some*, /səm/? Can the plural noun occur (e) without a determiner?" The classification test with these five constraints shows that, besides nouns that are either in the two classes of count nouns and noncount nouns, a number of nouns, such as *brick* and *paper*, can be indeed regarded as both count and noncount nouns and thus said to have "dual class membership" (Greenbaum and Quirk, 1990: 71; Quirk et al. 1985: 246-247). Nevertheless, Quirk et al. (1985: 248) also point out that "The distinction between count nouns and noncount nouns is not fully explainable as necessarily inherent in 'real world' denotata. ... Rather, the justification for the count/noncount distinction is based on the grammatical characteristics of the English noun."

In similar fashion, Allan (1980: 565) argues that "Most nouns can be used either countably and uncountably, making it impossible to propose seriously that either plus or minus countable is the intrinsic property of each of them . . . countability is not intrinsic to the particular instance of a noun, but is a feature of its environment. So countability can be properly accounted for only as a subcategory of the NP." However, as he acknowledges that each noun has its preference for countability, Allan (1980) suggests five kinds of environment by which the countability level of English nouns can be measured: (1) "the EX-PL Test (NP-external plural registration)"; (2) "the A + N Test (a unit denumerator, such as *a(n)*, *one*, ranging over the noun)"; (3) "the *All* + N Test (*all* ranging over the noun in a genus-denoting or genus-referring singular NP)"; (4) "the F + Ns Test (a fuzzy plural

denumerator, such as *several*, *about fifty*, ranging over the noun)"; (5) "O-DEN (all other denumerators)". According to the results he reports (1980: 562), there can be said to be eight levels of countability in English nouns, instead of two. Example nouns of each level are: (from more countable to less) *car*, *oak*, *cattle*, *Himalayas*, *scissors*, *mankind*, *admiration* and *equipment*. Interestingly enough, Allan (1980: 566) also indicates that "All the evidence points to nouns being basically uncountable, though most of them exhibit a degree of countability."

Payne and Huddleston (2002: 334-335) describe that "A simple test for count nouns is the ability to combine with the cardinal numerals *one*, *two*, *three*, etc." and that the entities that count nouns denote are "individual" and "atomic in the sense that they cannot be divided into smaller parts of the same kind as the whole" whereas the entities that non-count nouns denote are "not inherently bounded". Payne and Huddleston (2002: 334) also state that "Many nouns can be used with either a count or a non-count interpretation," which, they think, is "a case of polysemy". Huddleston (1984: 245), as in the case of Allan (1980), discusses the degree of countability of nouns, with the criterion of compatibility of individual nouns with various kinds of determiners: "(i) the cardinal numerals *one*, *two*, *three*, etc.; (ii) other numerically quantifying expressions such as *both*, *a dozen*, etc.; (iii) the 'fuzzy' quantifiers *many*, *several*, *few*; (iv) *a*, *another*, *each*, *every*, *either*, *neither*, which take singular heads." He observes that there are six countability classes in English, whose example nouns he gives are as follows (1984: 245): (from uncountable to fully countable) "(I) *equipment*, *outskirts*; (II α) *knowledge*, *phonetics*; (II β) *clothes*, *dregs*; (III) *cattle*; (IV) *police*, *people*; (V) *cake*, *dog*".

In addition to the countability analysis in terms of each noun's inherent property above, Huddleston (1984: 246) provides another argument from the point of view of "the interpretation of actual instances of nouns", which concerns "the concept of boundedness". Taking the fully countable noun *cake* as an example, he argues that "In *another cake*, *cake* has a bounded or individuated interpretation: it is conceived of or perceived as a unit, a discrete entity; in *so much cake* it has an unbounded or mass interpretation", and explains that "The interpretation as mass or individuated depends in part upon the number (singular or plural), in part upon the determiner and in part upon the noun itself" (1984: 246). As the noun itself sometimes determines its interpretation and boundedness, Huddleston (1984: 247) notes that an uncountable noun can hold a mass interpretation only, but not an individuated interpretation. In contrast, according to Huddleston (1984: 247), countable nouns can allow both individuated and mass interpretations "depending on the syntactic

structure of the NP containing it and/or the context." What is interesting is that, because of this dependence on the context, Huddleston (1984: 248) points out that "Just how we determine the specific interpretation attaching to a particular mass or individuated use of a given noun is a problem for semantic theory rather than for grammar in the narrow sense".

Indefinite articles

First of all, Quirk et al. (1985) explain that "The indefinite article is notionally the 'unmarked' article in the sense that it is used (for singular count nouns) where the condition for the use of *the* do not obtain" (272) and that "With plural count nouns and with noncount nouns, the indefinite article does not occur. The zero article is used instead" (274). With regard to abstract nouns with the indefinite article, Greenbaum and Quirk (1990: 84) succinctly describe that "Abstract nouns tend to be *count* when they refer to unitary phenomena such as events and *noncount* when they refer to activities, states, and qualities" and observe that "the effect of the indefinite article is partitive and that this can be qualitative (*a troubled history*) or quantitative (*a great kindness*). ... The partitive effect is often accompanied by modification of the noun". Quirk et al. also suggest two conditions under which abstract, usually noncount, nouns co-occur with the indefinite article (1985: 287): "(i) the noun refers to a quality of other abstraction which is attributed to a person; (ii) the noun is premodified and/or postmodified; and, generally speaking, the greater the amount of modification, the greater the acceptability of *a*/*an*."

Several other accounts of the occurrence of the indefinite article accompanying abstract nouns are also provided by grammarians. Biber et al. (1999: 244) note that "Abstract nouns, which tend to be basically uncountable, also have countable uses ... the uncountable use refers to the general phenomenon, while the countable use refers to individual instances or types", giving such examples as *an education* and *a "cruel kindness"*. Swan (2005) states that "Many abstract nouns can have both uncountable and countable uses, often corresponding to more 'general' and more 'particular' meanings" (130) and, at the same time, that "With certain uncountable nouns - especially nouns referring to human emotions and mental activity - we often use *a*/*an* when we are limiting their meaning in some way" (132), providing *a first-class knowledge of German*, *a deep distrust of strangers*, *a good sleep* etc. as examples. Concerning these particular uncountable nouns, he adds that "these nouns cannot normally be used in the plural, and that most uncountable nouns cannot be used with *a*/*an* at all, even when they have an adjective" with such examples as **a very*

good health and **an excellent English* (2005: 132) (the asterisk * shows the ungrammaticality of the example). Interestingly, Swan also mentions that "Some countable abstract nouns can be used uncountably after *little*, *much* and other determiners" as seen in *not much difference* and *little difficulty* (2005: 131).

Payne and Huddleston (2002: 337), regarding the polysemy of nouns in count or non-count interpretations, discuss certain abstract nouns, stating that "There are a large number of nouns denoting abstract concepts which are non-count in their primary sense. With some there is a secondary count sense denoting an event which constitutes an instance of the abstract concept", and also that "Nouns which denote results, however, are more generally countable than those denoting events". Examples given by them are: *two fundamental injustices* (event), *two discussions of the land question* (event), *three separate inventions* (result), etc. For Payne and Huddleston, however, as is seen above, these example abstract nouns are interpreted countably, so uncountably interpreted abstract nouns are another case.

Payne and Huddleston (2002: 339) explain that "Under restricted condition, however, *a* can combine with a non-count singular". They provide examples such as *I have a high regard for them* and *Jill has a good knowledge of Greek* etc. and argue that *knowledge* here "is a clear case of a non-count noun: it has no established plural and combines with the determinatives *much*, *little*, *enough*" (339). Then, Payne and Huddleston meticulously conclude (2002: 339) that "The effect of the *a* is to individuate a subamount of knowledge, her knowledge of Greek, but this individuation does not yield an entity conceptualised as belonging to a class of entities of the same kind". Huddleston (1984: 248) analyses in a similar way that the individuated interpretation of *knowledge* in the example sentence *She had a very good knowledge of the subject* "merely delimits her knowledge of the subject in question from other knowledge that she has, thereby permitting its characterisation as good." In addition, another interesting description by Payne and Huddleston (2002: 372) is that *a* in *Jill has a good knowledge of Greek* is, as in *a* in *Jill is a doctor*, a non-quantitative indefinite article, which therefore cannot be replaced by *one* and only indicates a set denoted by the noun with it.

Lastly, although it does not directly concern the indefinite article, Carlson's (1977) argument seems to be fairly relevant to this paper's topic and worth mentioning here. He examines bare plurals, i.e. plural NPs with no determiner, in English and argues that "we treat the bare plural in all cases as denoting a kind of thing. In particular, we suppose that the bare plural acts as the proper name of a kind, and that kinds are to be construed as

individuals" (1977: 442). Thus, according to Carlson (1977), it is the context of the sentence that makes a certain distinction between the generic use and existential use of bare plurals; at an individual level bare plurals are interpreted as generic, as in his example sentence *Frogs are clever* (447), and at a stage level as existential, as in *Frogs are awake* (447). Carlson (1977) also shows in his argument above that null determiners in plural NPs do not function as the plural equivalent of the indefinite article *a*. Furthermore, Carlson (1977: 425) points out that mass nouns with null determiners are nearly the same as bare plurals in terms of their performance. This means that NPs with no determiner, whose head can be a count noun or a non-count noun, simply denote kinds of things and that it is determiners including indefinite articles that add various values and senses to NPs.

Corpus research

1. Frequency analysis

This paper has done certain research utilising the British National Corpus (BNC) (2005) to investigate how 'non-count' abstract nouns such as *knowledge* and indefinite articles are actually used together. Firstly, what kind of determiner (determinative) occurs with the abstract noun *knowledge* in the NP whose head is *knowledge* and how frequently it does are examined with 200 sample NPs from the BNC.

Table 1   Percentages of the determiners etc. in the NPs with the head noun *knowledge*

	the	genitive case	*that*, *this*	*no*, *little*	*any*, *more*, *some*	zero	*a, an*
samples: 200	29	31	8	3	4	112	13
percentage	14.5%	15.5%	4%	1.5%	2%	56%	6.5%

Table 1 shows the results of the test: in more than half of the occasions (56%), there is no determiner in the NP. The total of the determiners which indicate definiteness, such as *the*, *that* and *this*, and genitive cases accounts for approximately one third (14.5% + 4% + 15.5% = 34%). The indefinite article *a/an* is used with *knowledge* only in 6.5% of the cases,

about 8.6 times less than the use of zero articles.

Secondly, among the NPs with the head *knowledge* and the indefinite article *a/an*, what word directly follows *knowledge* and its frequency are reviewed with 100 sample NPs. The results are as follows:

Table 2   Percentages of the words directly following the head noun *knowledge* in the NPs with the determiner *a/an*

	of	*about*	*in*	*than*	relative pronouns	(none)
samples: 100	89	2	1	1	2	5
percentage	89%	2%	1%	1%	2%	5%

Table 2 shows that the preposition *of* is overwhelmingly dominant over the rest of lexical items, used in nearly 90% of all the cases. Also, it should be noted that 5% of the instances has no following words at all in the NP after *knowledge*.

Finally, several abstract nouns in the same semantic field as *knowledge*, such as *understanding*, *grasp* and *comprehension*, are investigated in basically the same way as *knowledge* is done above, with the smaller number of samples from the BNC. The results shown in tables 3 and 4 below allow interesting comparisons of *knowledge* and other abstract nouns. Table 3 shows that both *understanding* and *grasp* are indeed used with the indefinite article *a/an* in almost 30% of the cases, more than 4 times more often than *knowledge*. Also, with the head noun *grasp*, half of all the NPs have the genitive case, which seems to make this abstract noun distinctive. In contrast to the others, the noun *comprehension* sporadically occurs with *a/an* (2%), in most of the cases (72%) used with zero articles. Table 4 indicates that *understanding* and *grasp* with the indefinite article are, in the vast majority of the cases, accompanied by the preposition *of*, showing considerable similarity with *knowledge*.

Table 3   Percentages of the determiners etc. in the NPs with the head nouns *understanding*,
grasp and *comprehension*

	the	genitive case	*that, this*	*no, little*	*any, more, some*	zero	*a, an*
understanding samples: 50	9	6	1	0	1	19	14
percentage	18%	12%	2%	0%	2%	38%	28%
grasp samples: 50	7	25	0	1	1	2	14
percentage	14%	50%	0%	2%	2%	4%	28%
comprehension samples: 50	5	8	0	0	0	36	1
percentage	10%	16%	0%	0%	0%	72%	2%

Table 4   Percentages of the words directly following the head nouns *understanding*
and *grasp* in the NPs with the determiner *a/an*

	of	prepositions other than *of*	appositive *that*	relative pronouns	(none)
understanding samples: 50	45	2	1	0	2
percentage	90%	4%	2%	0%	4%
grasp samples: 50	48	1	0	0	1
percentage	96%	2%	0%	0%	2%

2. Semantic analysis

First of all, the question of whether the abstract noun *knowledge* is a count noun or a non-count noun arises. The answer is not likely to be binary partly because, as Allan (1980) states, countability is a matter of the context or environment in which the noun is placed and partly because, as Allan (1980) and Huddleston (1984) analyse, there seem to be several degrees of countability in English nouns. However, the noun *knowledge* seems to be basically a non-count noun, as Huddleston (1984: 245) classifies it into II α, the second uncountable level, and Payne and Huddleston (2002: 339) regard *knowledge* with the indefinite article as "a clear case of a non-count noun". Moreover, according to the statistics in table 1, in 56% of the cases the noun *knowledge* is used with null determiners. Here are certain examples:

[1]   The suggestion almost made is that, since **knowledge** is certain and faith is not **knowledge**, faith is uncertain. (BNC, C8V 426)

[2]   They differ from more traditional educational techniques which focussed more on theoretical and practical **knowledge**. (BNC, CHT 1428)

[3]   Behind both the economics and politics of Fabianism lay an organic theory of society and the view that progress is tied to advances in technical **knowledge**. (BNC, EAJ 811)

Knowledge in all [1], [2] and [3] expresses certain general concepts and is open only to a mass interpretation though in [2] and [3] *knowledge* is modified by adjectives.

Nevertheless, in very special cases, 6.5% in table 1, the head noun *knowledge* co-occurs with the indefinite article *a/an* in the NP, apparently assuming somewhat different characteristics from that in [1], [2] and [3]. Example sentences are as follows:

[4]   It is advisable for a company to employ specialist counsellors who have **a** detailed **knowledge** of the new country to run such sessions. (BNC, CHS 190)

[5]   **A** thorough **knowledge** of such conditions is essential when determining the most advantageous international payment methods for your business. (BNC, EE0 528)

[6]   Valerie Emblen describes how important **a knowledge** of the children's mathematical background is when planning the mathematics curriculum for Bangladeshi children in London. (BNC, H88 66)

What seems to be of significance is that the noun *knowledge* in [4], [5] and [6] is bound to be regarded grammatically as a count noun simply because the article *a* is attached to it. In other words, *knowledge* here may have to be a countable noun in terms of grammar but may not be so in semantics.

It seems possible to say that *knowledge* with the indefinite article is neither a count noun or a non-count noun, or more accurately, it is posited somewhere in between a count noun and a non-count noun. Probably, it could be said that *knowledge* with *a/an* is in essence a non-count noun but is moved towards a count-noun to a certain extent in order to represent a semantically distinct phenomenon. Compared to [1], [2] and [3], this difference in character can be readily observed in [4], [5] and [6]. Not only [4] and [5] have an adjective which modifies *knowledge*, i.e. *detailed* and *thorough* respectively, but all [4], [5] and [6] are post-modified by a prepositional phrase (PP) headed by *of*, which accounts for 89% of the cases of *knowledge* plus *a/an* as shown in table 2. This PP seems to function as a kind of restrictor; to be more precise, the preposition *of* here shows that the noun after *of* is the object of the transitive verb *know*, from which the noun *knowledge* is derived.

What is intriguing is that, in order to express this somewhat different nature of *knowledge* in semantics, one obligatorily needs the indefinite article *a/an* in the front of the NP. Probably, different cognition requires different rules, and not the other way around. In the first place, one has a desire to express certain meaning concerning *knowledge* which is not quite the same as that conveyed with usual non-count *knowledge*. Non-count nouns permit mass interpretations only (Huddleston, 1984), and therefore it seems that these nouns cannot be viewed as something with certain shape. So, if one has a certain vivid mental picture which cannot be expressed with a non-count *knowledge*, it seems only natural to represent that image in another way. The example NPs with *knowledge* in [4], [5] and [6] all share a certain lively image of *knowledge* in the context although they still have the same function of basic representation of quality as non-count nouns.

[7]   Everyone involved with the implementation of the community care legislation must acquire **a** working **knowledge** or clients will get mistaken or confused

advice. (BNC, FT6 420)

[8] The rating surveyor has **a** specialist **knowledge** in this area, and will always be pleased to advise. (BNC, CBX 1838)

In the case of [7] above, although a PP does not follow *knowledge*, *a working knowledge* does seem to carry a certain clear image because it is obvious that from the context *a working knowledge* here means that '*of the community care legislation.*' In [8], it is not the PP *in the area* but the modifier *specialist* that makes *knowledge* distinguished enough to have a certain image since every specialist inevitably has particular things to 'know.'

At the level of speech, the way of differentiating *knowledge* with a vivid image from *knowledge* with no shape or image is, no doubt, to add the indefinite article *a/an* to the NP. As Carlson (1977) analyses, zero determiners simply denote kinds of things and, for this reason, leave nouns neutral; in contrast, it is a function of determiners (determinatives) including *a/an* to give certain characteristics or images to NPs. Since the indefinite article seems most adequate to give boundaries to a mass and thus cut out a vivid picture from obscure space, *a/an* seems to be necessitated in the NP headed by a different kind of *knowledge* to play this part. It could be said that it is one function of *a/an* to give abstract non-count nouns temporary, exceptional boundedness.

However, this role of the indefinite article probably depends, to a certain extent, on the speaker's perception and the noun itself.

[9] Effective measurement requires detailed **knowledge** of the properties of phenomena which are to be reflected or mapped on to some mathematical system. (BNC, HPU 782)

The case of [9], where *a detailed knowledge* seems to be also possible, appears to indicate that there is certain room for the speaker to exploit to reflect their perception of the situation since basically a mass interpretation is the 'default' setting. Also, the bounding function of *a/an* seems to depend on nouns: for example, as is observed in table 3, the head noun *grasp* is most often used with genitive case (50%), which suggests that certain strong bodily images, which prefer direct links with the subject, are cognitively attached to *grasp*.

Conclusion

This paper has attempted to explain the reason non-count nouns sometimes co-occur with the indefinite article in English, particularly in such cases as *knowledge* with *a/an*, and to provide useful approaches to understanding English non-count nouns and indefinite articles. Although it is not yet entirely clear why such phenomena take place, certain points now seem to be evident. The noun *knowledge* can be viewed as a non-count noun even when it is used with *a/an*. The non-count noun *knowledge* can be somewhat shifted towards the countable usage when such a movement is necessitated, i.e. when there is a need to differentiate between normal non-count use and untypical use. This occurs probably because the speaker perceives two distinct entities of *knowledge*, one with a vivid image and one with no clear image, and cannot be satisfied with the original expression without somewhat altering it. The indefinite article *a/an* seems to be the determiner that happens to be available and indeed most suitable for the process. In other words, this has probably something more to do with semantics or cognitive systems than grammar per se, and, in fact, many grammatical occurrences might be better elucidated in this way.

References

Allan, K. (1980). Nouns and countability. *Language* **56** (3). 541-567.

Biber, D., Johansson, S., Leech, G., Conrad, S. and Finegan, E. (1999). *Longman grammar of spoken and written English*. Harlow: Longman.

British National Corpus, The. (2005). [online] *The British National Corpus*. Available at: http://www.natcorp.ox.ac.uk/.

Carlson, G. (1977). A unified analysis of the English bare plural. *Linguistics and Philosophy* **1**. 413-457.

Greenbaum, S. and Quirk, R. (1990). *A student's grammar of the English language*. Harlow: Longman.

Huddleston, R. (1984). *Introduction to the Grammar of English*. Cambridge: Cambridge University Press.

Payne, J. and Huddleston, R. (2002). Nouns and noun phrases. In Huddleston, R. and Pullum, G. et al. *The Cambridge grammar of the English language*. Cambridge: Cambridge University Press. 323-523.

Quirk, R., Greenbaum, S., Leech, G. and Svartvik, J. (1985). *A comprehensive grammar of the English language*. Harlow: Longman.

Swan, M. (2005). *Practical English usage* (Third edition). Oxford: Oxford University Press.

Takehiro Tsuchida is currently a lecturer at Digital Hollywood University, Tokyo, Japan. He has a Master's degree in English language from the University of Manchester, U.K. His interests include English as a second language (ESL), language education, syntax, semantics, corpus linguistics and cognitive linguistics among others.