

# ENGLISH MASS AND COUNT NOUNS: A PSYCHOLINGUISTIC STUDY

CHIU-YU TSENG

## Introduction

All English nouns can be syntactically classified as either count or mass nouns. Nouns such as *pen* and *desk* are count nouns, since they possess singular forms, i. e., *a pen* and *a desk* as well as plural forms, i. e., *two pens* and *three desks*. On the other hand, nouns such as *air* and *butter* are mass nouns, since they refer to mass that cannot be individuated. Mass noun do not have plural forms by definition (\**three butter* is ungrammatical). However, many nouns can be either a count noun or a mass noun depending on the referent. Nouns such *hamburger* and *sausage* are count nouns when they refer to individuated entities (such as a hamburger in fast food stores or link sausages), but at the same time are mass nouns when they refer to mass, i. e., meat in a grocery store. In such cases, there is a parallel relationship between the syntactic mass-count distinction of nouns and whether the entities can be individuated. Thus count nouns refer to individuated entities and mass nouns refer to non-individuated entity. Nevertheless, if all nouns were organized this way, linguistic rules governing count-mass distinction would not become an object of psycholinguistic study.

There are many cases in which the syntactic categorization of nouns does not match their semantic characteristics. Of special interest are cases in which a count noun and a mass noun refer to two entities that are perceptually or cognitively similar. Examples of such count-mass noun pairs listed by McCawley (1975) include: noodle-spaghetti, onion-garlic, shoe-footware, bean-rice.....etc. The first member of the pair is a count noun, the second member a mas noun. Yet, the entities referred to by the noun

pairs look similar.

This discrepancy may be better understood if the concept of semantic or cognitive countability as opposed to syntactic countability is defined. Cognitive countability is the extent to which people can count the object that is referred to by a given noun. To illustrate the discrepancy, imagine the object garlic and try to count it. If one can always count the object, then the object is semantically or cognitively countable. If one cannot count the object under any circumstances, the object is semantically or cognitively uncountable. Depending upon the nature of objects imagined, there is a range of semantic countability. On the other hand, syntactic countability is the extent to which people pluralize a given noun. Count nouns are highly countable, whereas mass nouns are highly uncountable. Nouns such as *hamburger* and *sausage* are probably moderately countable. Both semantic and syntactic countability can be assessed on a scale.

The present study attempts to assess semantic countability as well as syntactic countability, and examine how native speakers of American English represent the discrepancies between their syntactic knowledge and semantic knowledge of nouns. Syntactic knowledge refers to systematic understanding of the linguistic context in which a given noun is used. Nouns used with numerals or quantities (a few, several, many, etc.) are syntactically countable. Nouns used without numerals or quantities are syntactically uncountable. Following this rule, native speakers' syntactic knowledge of most English nouns can be clearly stated (Allen, 1980). Semantic knowledge of nouns refers to our understanding of objects and concepts referred to by nouns. Semantic knowledge of concrete nouns is perceptual in nature, whereas semantic knowledge of abstract nouns is conceptual in nature. The term cognitive is used to refer to both perceptual and conceptual aspects in understanding the nature of objects and concepts. Given the characteristics of the noun pairs used in this study, the major discrepancy between syntactic knowledge and semantic knowledge comes from two categories, i. e., concrete mass nouns and abstract count nouns.

There are at least two possible ways in which native speakers manage to handle this discrepancy. The first hypothesis suggested by McCawley (1975) is that there is no difference between the two entities referred to by the pair that is held responsible for the mass-count distinction. People

would perceive the objects spaghetti and noodles as similar objects. As there is no linguistic rule imposing upon perceptual understanding, people should rate the two entities referred to by the pair as similar in terms of whether they can count these entities, regardless of noun's syntactic category. Under this hypothesis, the semantic countability of the mass nouns should correspond to that of the count noun counterparts. This hypothesis is named a perceptual-cognitive correspondence hypothesis.

An alternative hypothesis is that syntactic categorization is imposed upon people's cognitive understanding of entities. When people hear an object name with a count noun, and imagine the object, they tend to count the entity referred to by the noun. Similarly, people tend not to count the entity referred to by a mass noun. This hypothesis is termed a linguistic correspondence hypothesis. These two hypotheses are contrasted in terms of whether syntactic categorization of nouns makes a difference in imagining and / or perceiving the entities referred to by nouns. An important distinction is made between nouns and entities referred to by nouns. This distinction is emphasized both conceptually and procedurally.

The above hypotheses can be easily extended to abstract count-mass noun pairs that refer to two similar concepts. Some examples of abstract count-mass pairs are idea-knowledge, message-information, suggestion-advice, fact-evidence, etc. The first member of the pair is a count noun, and the second member is a mass noun. Yet, concepts referred to by the pair are conceptually similar. Most of these pairs are listed as synonyms in dictionaries. The perceptual-cognitive correspondence hypothesis states that people rate the semantic countability of the abstract count nouns to correspond to that of the abstract mass nouns. On the other hand, the linguistic correspondence hypothesis states that the semantic countability corresponds to the syntactic countability, i. e., people rate the concept referred to by a count noun to be countable, and the concept referred to by a mass noun to be uncountable.

To make statistical predictions, some variables are defined. They are Category (mass vs. count), Rating (syntactic vs. semantic), Types of Nouns (concrete vs. abstract). The perceptual-cognitive correspondence hypothesis predicts a significant two-way interaction between Category and Rating with an identical semantic rating across the types of nouns, whereas the linguistic

correspondence hypothesis predicts no such interaction. Any significant higher order interaction of type of nouns with other variables suggests that the organization of syntactic knowledge and semantic knowledge is different for concrete nouns and for abstract nouns.

## Experiment I

Experiment I is designed to examine how subjects rate syntactic countability and semantic countability for noun pairs that refer to two similar objects or concepts.

*Materials.* Ten concrete noun pairs and ten abstract noun pairs were prepared through survey research given to fifty undergraduate students enrolled in introductory psychology courses. They were all native speakers of American English. First, they were given several examples of a noun pair such as onion-garlic and noodle-spaghetti, and were then told that the pair refers to two objects that look similar in terms of size, color, use, and meaning. Second, they were asked to generate similar noun pairs. Each pair generated by undergraduate students was further evaluated by several graduate students to make sure that the pair referred to two similar objects or concepts and that one member of the pair was a count noun and the other member was a mass noun. The final lists of noun pairs were as follows: The ten concrete noun pairs were: noodle-spaghetti, onion-garlic, cabbage-lettuce, roll / cake-bread, crayon-chalk, pancake-toast, pebble-gravel, radish-spinach, leaf-foliage, and shower-rain. The ten abstract noun pairs were idea-knowledge, message-information, suggestion-advice, investigation-research, fact-evidence, similarity-likeness, ability-aptitude, hostility-acrimony, sequence-successiveness, and deficiency-incompleteness.

*Procedure.* Subjects were given a list of randomized noun pairs. For half of the subjects, concrete nouns were listed on the right and abstract nouns were listed on the left. For the other half, this placement was reversed. The instructions for the semantic rating condition were as follows: As you see, there is a list of *words* on the sheet of paper. Some stand for objects and some stand for concepts. Now imagine an object or concept for each word and judge whether you can count the object or concept. If you feel you can always count, circle 5. If you cannot count at all, circle 1. For example, imagine "chair", you can count the object chair; therefore, the chair is

countable and circle 5. Another example is "air." You cannot count the object air; therefore you circle 1. How about "hamburger"? If you imagine a hamburger at McDonald's, you can count hamburgers. If you imagine ground beef, you cannot count it. "Hamburger" is sometimes countable and sometimes not countable. In this case, you may wish to circle 3. In other words, if you feel that you can count half of the time, circle 3. Depending upon how often you can count these objects or concepts, circle 2 or 4.

The instructions for the linguistic rating condition are as follows: As you see, there is a list of *nouns* on the sheet of paper. If you think you can always put *a* before the noun and *s* or *es* after the noun, the noun is very countable. For example, *desk* can be *a desk* or *two desks*. *Desk* is very countable and you circle 5. If you think you cannot put *a* before the noun or *s* or *s* or *es* after the noun, the noun is very uncountable. For example, consider the word *mud*. We cannot put *a* before *mud* or *s* after the noun. We cannot say *\*a mud* or *\*three muds*. In this case, you circle 1. How about the word *sausage*? If it is ground pork, you do not say *\*a sausage* or *\*two sausages*. *Sausage* is sometimes countable and sometimes uncountable. In this case, you circle 3. Depending upon how often you use these nouns as countable, circle 2 or 4.

*Subjects.* Sixteen undergraduate students who are native speakers of American English enrolled in introductory psychology courses participated in this experiment.

## Results

The results of Experiment I are shown in Table 1. Since syntactic countability is set by language, semantic countability rated by the subjects is focused. Within concrete nouns, mass nouns that are more countable semantically (3.32) than syntactically (2.16), but less countable semantically than count nouns (4.48). The two way interaction of Rating by Category is significant ( $\min F' (1, 36) = 82.55, p < .001$ ). However, the semantic rating for mass nouns does not correspond to the semantic rating for count nouns nor to the syntactic rating for mass nouns. Thus, neither of the two original hypotheses is supported by these findings. Instead, the semantic countability for mass nouns needs to be accounted for by a third hypothesis. The syntactic rating closely reflects the previous survey research findings that these

count nouns are countable, and mass nouns are uncountable.

**Table 1**

Syntactic and Semantic countability of English nouns by concrete-abstract and count-mass dimensions(Experiment I)

Rating	Type of Nouns			
	Concrete		Abstract	
	Count	Mass	Count	Mass
Syntactic	4.79	2.16	4.61	2.26
Semantic	4.48	3.32	3.24	2.20

Maximum score is 5.00 which indicates that subjects rate a given category of nouns to be always countable. Minimum score is 1.00 which indicates that subjects rate a given category of nouns to be always uncountable.

Within abstract nouns, count nouns that are syntactically countable (4.61) are rated semantically less countable (3.24), but semantically more countable than mass nouns (2.20). The two way interaction of Category by Rating is significant ( $\min F'(1, 14) = 21.90, p < .01$ ). However, the semantic rating for count nouns does not correspond to the semantic rating for mass nouns nor to the syntactic rating for mass nouns. Thus, the two original hypothesis are not supported by these findings, and a new hypothesis is called for.

Across the concrete and abstract nouns, the interaction of Category by Rating does not interact with Type. The overall pattern of rating is similar across the types of nouns. The syntactic rating for count nouns and mass nouns is clearly distinguished. The extent to which count nouns are rated syntactically more countable than their mass counterparts is similar across concrete and abstract nouns, that is, the difference in syntactic countability between count nouns and mass nouns is 2.63 for concrete nouns, and 2.35 for abstract nouns. For concrete count nouns and abstract mass nouns, the syntactic rating and semantic rating converge. The only two categories in which syntactic rating and semantic rating diverge are concrete mass nouns and abstract count noun. Semantically, concrete mass nouns and abstract

count nouns are rated to be neither countable nor uncountable. These two types of nouns require further analyses in their usage.

## Experiment II

Experiment II was designed to make sure that subjects imagined the objects as intended by the experimenters. In Experiment I, the subjects may have varied in imagining, for example, the object garlic. Some may have imagined a clove of garlic, or others may have imagined a box of powdered garlic. By presenting a drawing picture of an object together with a corresponding noun, better control was exercised over the subject's understanding of objects in this experiment.

*Materials.* Noun items used were identical to those in Experiment I. Concrete nouns and abstract nouns were presented clustered on one side of a sheet. Only the order of items within concrete nouns or abstract nouns was changed in this experiment. The order of noun pairs was randomized, and the order within the pair was also randomized. When subjects rated the countability of objects, they saw physically similar pictures for the pair. This design was considered to ensure that subjects rated the countability of similar objects.

*Procedure.* The procedure was identical to Experiment I.

*Subjects.* Sixteen undergraduate students who are natives speakers of American English and who had not participated in Experiment I participated in Experiment II.

## Results

The results of Experiment II are shown in Table 2. The findings for concrete nouns are unchanged from Experiment I. Mass nouns that are syntactically uncountable (1.88) are semantically more countable (3.47), but mass nouns are semantically less countable than count nouns (4.50). The two way interaction of Rating by Category is significant (min  $F'(1, 14) = 44.15$ ,  $p < .01$ ). The same pattern of results across the two experiments suggests that the subjects in Experiment I perceived the objects as intended by the experimenters.

The findings for abstract nouns are different from those of Experiment I. Mass nouns and count nouns are rated semantically identical (2.20 vs.

Table 2

Syntactic and semantic countability of English Nouns with pictures by concrete-abstract and count-mass dimensions (Experiment II)

Rating	Type of Nouns			
	Concrete		Abstract	
	Count	Mass	Count	Mass
Syntactic	4.64	1.88	4.39	2.06
Semantic	4.50	3.47	2.21	2.20

2.21, respectively), which clearly supports the perceptual-cognitive correspondence hypothesis. In Experiment II, subjects rated the concepts referred to by count nouns and mass nouns to be equally uncountable, and to be uncountable to the same extent to which mass nouns are syntactically uncountable. Syntactic rating is as expected in that count nouns are countable (4.39) and mass nouns are uncountable (2.06).

Across the concrete and abstract nouns, the interaction of Category by Rating interacts with Type. This finding suggests a possibility of different knowledge organizations across types of nouns.

### Discussion

The present study has attempted to assess a new concept of semantic countability of English nouns together with a more established concept of syntactic countability. Concrete mass nouns, e. g., *lettuce* and *garlic* and abstract count nouns, e. g., *idea* and *message*, are in need of further analyses, since their semantic countability does not correspond to their syntactic countability. For concrete count nouns and abstract mass nouns, semantic countability closely corresponds to syntactic countability. The close correspondence does not pose any problems for learners or speakers in organizing syntactic and semantic knowledge of these nouns. Thus, concrete count nouns and abstract mass nouns need no further analysis.

In the present paper, two hypotheses are originally proposed. The



perceptual-cognitive correspondence hypothesis states that the semantic countability of nouns should correspond to perceptual-cognitive characteristics of objects or concepts referred to by the nouns. The linguistic correspondence hypothesis states that objects referred to by count nouns are imagined as countable, and objects referred to by mass nouns are imagined as uncountable. All the findings except for abstract nouns in Experiment II are not supported by the perceptual-cognitive correspondence hypothesis nor by the linguistic correspondence hypothesis. The finding of abstract nouns in Experiment II is clearly supported by the linguistic correspondence hypothesis. Major findings and the difference in the pattern of results in Experiment I and Experiment II are discussed in order.

First, concrete mass nouns that are syntactically uncountable are semantically more countable but less countable than corresponding count nouns. Under the perceptual-cognitive correspondence hypothesis, concrete mass nouns would be rated as countable as count nouns. In contrast, under the linguistic correspondence hypothesis, concrete mass nouns would be rated as uncountable as specified by syntax. Thus, the finding cannot be accounted for by either of the two hypotheses. This finding calls for an interactional hypothesis. Although people perceive individuated entities such as a plate of spaghetti, a head of lettuce, or a clove of garlic, they do not rate these objects cognitively as countable as noodles, cabbages, or onions. Since the objects shown in Experiment II are almost identical for mass nouns and count nouns, the only factor that reduces the semantic countability of these objects should be the syntactic category of the corresponding nouns. Thus, both the physical characteristics of objects and the syntactic category of corresponding nouns contribute to the semantic countability of concrete mass nouns. When people are asked to semantically rate these mass nouns, it is as if they are balancing the noun's syntactic countability and their perceptual understanding of the objects referred to by the mass nouns. In accounting for the semantic countability (3.32) of concrete mass nouns in Table 1, one can assume that people, upon imagining objects referred to by these mass nouns, cognitively or intuitively assess the objects' countability the same as the countability (4.48) of the objects referred to by count nouns. At the same time, people know that these mass nouns are uncountable (2.16). In rating semantic countability, they balance out the syntactic countability (2.16), and intuitive cognitive countability

(4.48) and generate the midpoint (3.32). This generated average figure turns out to be identical to the actual figure for concrete mass nouns. Thus, a single interactional process may be postulated such that people first take both syntactic countability and intuitively assessed cognitive countability of individuated objects, and then average the two kinds of countability for the final semantic countability of concrete mass nouns.

Second, abstract count nouns are semantically rated less countable than abstract mass nouns in Experiment I. This finding can also be accounted for by the interactional hypothesis. If one assumes that people find no difference between, for example, knowledge and idea, according to the non-correspondence hypothesis, then one would semantically rate abstract count nouns as 2.20. On the other hand, the linguistic rating for count nouns is 4.61. By averaging 2.20 and 4.61, one would come up with 3.41, which turns out to be very close to the actual figure 3.24. This simple averaging interactional hypothesis also can account for the moderate discrepancy between the linguistic ratings and cognitive rating for concrete mass nouns in Experiment I. The same hypothesis, however, cannot account for the findings of abstract count nouns in Experiment II.

Third, the observed pattern of countability for abstract nouns in Experiment II clearly supports the perceptual-cognitive correspondence hypothesis suggested by McCawley (1975). The procedural difference between Experiment I and Experiment II may be responsible for this different pattern of results. In Experiment II the noun pair was presented consecutively, although the items within the pair were randomized across the pair. When the two concepts referred to by a count noun and a mass noun are similar in meaning and are presented together, conceptual similarity becomes salient. Thus, the two tend to be treated similarly. On the other hand, when two concepts are not presented consecutively as in Experiment I, the two tend to be treated differently because of the two opposing syntactic categories to which the two concepts refer. Thus, the support of the perceptual-cognitive correspondence hypothesis as demonstrated by the finding of abstract nouns in Experiment II seems to be an experimental artifact of presenting paired concepts in an adjacent sequence.

These results may be discussed further in relation to a child language study by Gordon (1982) and a suggestion made by McCawley (1975). Gordon

hypothesized that children learn the distinction between count nouns and mass nouns based upon physical characteristics of entities, and alternatively, that children learn the distinction based upon linguistic context, i. e., whether a noun occurs in the context of *a*, *many*, *several*, etc., or *more*, *much*, etc. In order to test these two alternative hypotheses, children were given a combination of a new name and an entity in which semantic and syntactic cues were in competition. They were asked to learn a new count name for unindividuated substance and a mass name for an individualized object. In the testing session, they were asked to complete a sentence such as "Here we have some more \_\_\_\_\_." If children pluralized the name (e. g. *\*more latts*), when the accompanying entity was an individuated object, their distinction should be based upon semantic cues. If children pluralize the name whenever the name is syntactically defined as count, then their distinction should be based upon syntactic cues. Results indicated that the majority of children used syntactic cues but a few children used semantic cues to determine whether they should pluralize the name. Gordon concluded that children base the categorization on linguistic context and not the semantic principle. However, if children did not attend to physical characteristics of the entities presented, they would use only syntactic context to determine the category of the name given. Although Gordon's findings may not be interpreted as is, his basic theoretical framework appears to be sound not only for child language studies but also adult language processing studies.

In this respect, our study represents a clear case in which both syntactic cues and semantic cues are represented in native speakers' knowledge of English nouns. It is quite possible that children learning to use the words *garlic* or *lettuce*, make mistakes such as *\*two garlics* or *\*three lettuces* while they are looking at these entities. If Gordon's (1982) study had ensured that syntactic and semantic cues were actually competing for children, it would have also shown that children use both syntactic and semantic cues.

An additional discussion is in order with the perceptual-cognitive correspondence hypothesis suggested by McCawley (1975). Although the hypothesis is not central to McCawley's interest in whether the mass-count distinction is represented in the meaning of a lexicon, it raises an interesting question as to how people learning English represent syntactic and semantic knowledge about noun pairs. It is an irregularity that two objects such as cabbage and head

lettuce are coded as a count noun and mass noun, respectively. Perhaps, both children learning English and adults learning English as a second language start with the perceptual-cognitive correspondence hypothesis in which they actually view the paired objects in this experiment to be cognitively similar and find the syntactic categories of corresponding nouns inappropriate for these objects. However, constant exposure to these nouns in a linguistic context modifies learners' semantic knowledge about these objects. Thus, matured learners' knowledge is best accounted for by the interactional hypothesis presented in this study.

Our finding indicating that concrete mass nouns are more countable semantically than syntactically can be compared with the current colloquial usage of certain mass nouns as count nouns. Although *coffee*, *beer*, and *wine* are typical examples of mass nouns, they are frequently used as count nouns. In everyday life people see substance referred to by these nouns so frequently as individuated substance (in a cup, can, or glass) that they tend to treat these nouns as count nouns. Especially when the syntactic category of a noun does not correspond to perceptual characteristics of the object referred to by the noun, the frequent usage of that noun is likely to induce a change in grammatical usage. It is interesting to note that *coffee* is classified as a count noun (as in *three black coffees*) and a mass noun by Hornby (1974), but only as a mass noun in an earlier version (Hornby, Gatenby, & Wakefield, 1948).

Our finding on concrete mass nouns can also be compared with Markman and Seibert's (1976) informal observations about the usage of collective nouns such as *committee*. People do know that these nouns when referring to a group are uncountable but frequently use the plural form of pronouns such as *they* to refer to *committee*. There seems to be a strong tendency in our cognition to treat objects or substance referred to by uncountable nouns as discrete or individuated entities. This tendency also accounts for our finding that concrete mass nouns are rated more countable semantically than syntactically.

Extending our arguments beyond the English language, the findings suggested that in other languages the equivalents of English concrete mass nouns may be syntactically categorized as opposite, i. e., as count nouns. In contrast, the equivalents of concrete count nouns should be syntactically categorized as same, i. e., as nouns. As a matter of fact, spaghetti in Italian is a count noun, i. e., a plural form of the singular form *spaghetti*. In Japanese, head lettuce

and *garlic* are typical examples of count nouns, where *rain* or *bread* are not. In French, on the other hand, *bread* and *toast* are count nouns. Across the above mentioned languages there appears to be more syntactic variability for the equivalents of English concrete mass nouns than for the equivalents of English concrete count nouns. As for abstract nouns, the same principle should be applied with less variability, since the majority of abstract nouns falls into the mass category. However, more cross-linguistic studies will be needed to provide more data in this respect.

In conclusion, the present paper has shown how people represent their syntactic and semantic knowledge about mass-count noun pairs that refer to two similar entities or concepts. The representation of concrete count nouns and abstract mass nouns is straightforward in that syntactic knowledge and semantic knowledge are consistently represented. The representation of concrete mass nouns such as *garlic* and *lettuce* and abstract count nouns such as *idea* or *advice* was complicated. People represent concrete mass nouns syntactically uncountable but semantically more countable. Similarly, people represent abstract count nouns syntactically countable but semantically less countable. Semantic countability is the same for concrete mass nouns and abstract count nouns. These results are explained by a hypothesis which postulates an interaction of syntactic knowledge of a noun and perceptual or cognitive knowledge of the corresponding entity.

## Footnotes

1. The author would like to thank Professor M. Michael Akiyama at Department of Psychology, University of Oklahoma, for his help throughout this project.
2. Although the syntactic rating for the nouns used in this study reflects previous survey research, a few nouns turned out to be less appropriate than originally designed. The count-mass distinction of *shower-rain* is not clear cut. *We had heavy rains* is possible. The pair *ability-aptitude* is also problematic, since *aptitudes* is possible. Finally, the *idea-knowledge* pair has a minor problem. Although it is clear that *idea* is a count noun and *knowledge* a mass noun, *a knowledge* is possible. *New college entrance requirements include a knowledge of a foreign language* is grammatical. The survey research asked the subjects to choose a mass noun that cannot take *a* before the noun nor *(e)s* after the noun.

## References

- Allen, Keith 1980. Nouns and countability. *Language*, 56, 541-567.
- Gordon, Peter 1982. Early coding of the count/mass distinction: semantic or syntactic? *Papers and Reports on Child Language Development Conference*, 21, 71-78.
- Hornby, A. S. 1974. *Oxford Advanced Learner's Dictionary of Current English*, Third Edition. London: Oxford University Press.
- Hornby, A. S., Gatenby, V., & Wakefield, H. 1948. *Oxford Advanced Learner's Dictionary of Current English*, First Edition. London: Oxford University Press.
- Markman, Ellen M., & Seibert, J. 1976. Classes and collections: internal organization and resulting holistic properties. *Cognitive Psychology*, 8, 561-577.
- McCawley, James 1975. Lexicography and count-mass distinction. *Berkeley Linguistic Society*, 1, 314-321.

# 從心理語言學的觀點試探英語名詞的可數性問題

鄭 秋 豫

英語中的名詞在傳統上都是從語法的觀點被分爲可數名詞及不可數名詞兩大類。但如進一步的從語意和認知兩方面去探討，就不難發現此種二分法並不能解決英語名詞可數性的實際問題。本文係採實驗的方法，試測英語名詞的可數性。實驗中包括十對具體名詞和十對抽象名詞。在每一對名詞中的兩項名詞所代表的事物或觀念在實際上十分相似，但前項可有複數形態，後項則不可。具體名詞如 onion-garlic，或 noodle-spaghetti；抽象名詞如 message-information，或 idea-knowledge。受試者的母語均爲美式英語。在接受測驗時受試者的工作是評估名詞的可數性，即判斷這些名詞是否能有複數形式，或這些名詞所代表的事物或觀念是否爲可數。實驗結果如下：受試者判定具體的可數名詞在語法上及語意上均爲可數；抽象的物質名詞在語法上及語意上則均爲不可數。不過受試者判定具體的物質名詞在語意上的可數性較在語法上的可數性高；而抽象的可數名詞在語意上的可數性較在語法上的可數性低。本文也就這些實驗結果與口語中將物質名詞作可數名詞使用（如 three black coffees）所可能產生影響加以討論。