On the Descriptions of the <CONTAINER> in -ful Nominals in English*
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1. Introduction

It has been often argued that syntactic operations cannot analyze the internal structure of words. (Cf. Chomsky’s (1970) lexical hypothesis, Di Sciullo and Williams’ (1987) thesis of atomicity of words, among many others.) As Kageyama and Shibatani (1989) and Giegerich (2005), for example, point out, the internal elements of certain kinds of compounds seem to welcome some of the syntactic operations and descriptions.¹

In this paper I would like to examine and consider a particular type of English compounds like (1), and point out that there is another type of compounds that allow prenominal adjectives to modify the composing element of the entire compound:

(1)  handful, spoonful, bucketful, glassful, mouthful, paiful, bowlful, roomful, houseful, bagful, basketful, scoopful, pocketful, thimbleful, tinful, trayful, tankful, tableful, spadeful, snootful, skepful, shovelful, shopful, shelf-ful, saucerful, sackful, quiverful, potful, plateful, pitcherful, pipeful, panful, palmful, netful, nestful, mugful, lungful, lapful, ladleful, jugful, jarful, hornful, hatful, forkful, fistful, ...

Those nouns are created by attaching -ful to the concrete nouns which denote certain containers that are considered to be filled with something. Henceforth, we will refer to the type of the nouns in (1) as “-ful nominal”.

The organization of this paper is as follows. Section 2 deals with the data which seem to indicate that a component (container) of a compound word is modified by the element outside the compound. Section 3 is concerned with its implications to the Di Sciullo and Williams’ thesis of atomicity of words. Section 4 is a conclusion.

2. Modification of the <CONTAINER> in -ful Nominals

The container denoted by the first element of the -ful nominal, for example, spoon of a spoonful of sugar has a function of measuring the amount of sugar. Thus, we usually understand that a tablespoonful of sugar is larger in quantity than a teaspoonful of sugar. There are plentiful examples, however, which suggest that a more minute distinction can be made by modifying the container inside the -ful nominal. Let us consider some concrete examples, since few detailed descriptions and analyses of the common but problematic -ful nominals seem to have been made so far.

2.1. Big and Little

Tsukuba English Studies (2007) vol.26, 1-10
Collins COBUILD Advanced Learner’s English Dictionary states that “you can refer to an amount of food resting on a spoon as a spoonful of food.” It also explains the item bucketful as in “A bucketful of something is the amount contained in a bucket.”

Bearing this COBUILD’s ‘amount’ definition in mind, consider the next examples often found in the texts:

(2) a. a big spoonful of sugar (cf. a large spoonful of sugar)
   b. a little spoonful of sugar (cf. a small spoonful of sugar)

If a spoonful of sugar refers to “an amount of sugar resting on a spoon, we cannot say that big and little in (2) modify spoonful, since large and small cannot be used with amount according to Longman Dictionary of Common Errors (1996, p. 34).

Suppose that the users of the examples in (2) use them “grammatically,” that is, as non-amount usage. Then the remaining possible object of modification by big and little in example (2) is spoon, the part of the compound word spoonful. Since the size of the spoon and its capacity are roughly correlated, modification of the spoon size would lead to the amount of things in the spoon. In fact, my informants agree that this container-modification interpretation exists along with the amount interpretation in (2).

The same consideration seems to be applicable to the following examples (henceforth, the underline is mine and bold letters are used by the author):

(3) But there’s something ominous about a very big mouthful of thick yogurt ... (Brown Bread Ice Cream)
(4) Then put into it a little silver spoonful of pure Ale-yeast and work it together with a Ladle to make it ferment... (Cariadoc’s Miscellany)
(5) A little pocketful of salt for a big bottleful of persimmon whiskey! And then, lower yet, China-berry! China-berry! Who but the men of this generation would ever have thought of making whiskey from China-berries? (Dukesborough Tales)
(6) They used to have a big bucketful of toys at school which we were supposed to play with. I didn't play with them though, because it seemed so childish to me. (Testament of Youth)

Since the size of the container and its volume are usually correlated, as I mentioned above, it is highly probable that the mechanism of modification seen in examples (3)-(6) above may be working even in the normal cases of combination of small / large and ‘amount’.

(7) I like filter coffee (ground coffee which is strained through filter paper), but I usually drink instant at home, so I only have a very small spoonful
of powder or granules and then I can drink it black.  

(How, What and Why)

(8) Tommy Brock watched him with one eye, through the window. He was puzzled. Mr. Tod fetched a large heavy pailful of water from the spring, and staggered with it through the kitchen into his bedroom.  

(Beatrix Potter, The Tale of Mr Tod)

2.2. Cartoon Character-shaped

Consider the next:

(9) ... just think...he is eating a mouthful of that, cleverly disguised as a cute little cartoon character-shaped spoonful of cereal! ...

(The Controversy over Food Dyes)

In this example it is natural to interpret that the phrase cute little cartoon character-shaped modifies spoon of the compound spoonful.

2.3. Broken

The word broken semantically selects the things that are breakable:

(10) Seemingly, it's also Andrew's arm tattoo kit. A broken basketful of bird shit ...

(DumbassBozo)

You cannot break the amount, nor the bird shit. Here again, we see a case of modifying the component of the -ful nominal compound.

2.4. Wooden

Consider the relationship between wooden and pail in the next example:

(11) I looked at a wooden pailful of angle-worms that I have been looking after all winter, so that Steve can have bait ...

(Journal of Charles Edwin Hewes)

In (11), we see a description of the material of the container; either the amount of the things contained or the things contained in the pail cannot be wooden.

2.5. Moss-corked

Much more closely related are moss-corked and bottle in (12):

(12) In silence, telling beads and bare-foot, they reverently perform the traditional Stations, partaking of the water and bearing away with them the moss-corked bottlefuls for the use of the sick and infirm at home or to send to relatives and friends in far distant lands.

(Tobar an Duin - Doon Well)

2.6. Heaped

Some particular persons would talk about how much heaped the spoon is when they drink coffee. Consider the next:

(13) a. heaped spoon (of sugar)
b. *heaped sugar

As the example in (13a) shows, the adjective *heaped* can modify the container, while it cannot modify the thing contained as (13b) shows. Then the following example strongly suggests that *gloriously heaped* describes the container *spoon* of the *-ful* nominal:

(14) a gloriously heaped spoonful of ice-cold caviar

(The Kitchen Crusader, 2006)

2.7. What Kind of

The next example is very interesting in that the *wh*-question operation seems to analyze the internal structure of the word *spoonful*:

(15) ...also **what kind of spoonful** are you referring to? there are so many different sizes?  
(Avant Labs)

This question is interpreted just as if it were ‘what kind of spoon are you referring to?’ In the subsequent question in example (15), the word *sizes* seems to refer to the sizes of spoons.

2.8. How Big a Handful of Spaghetti

We can ask the amount of the handful of spaghetti, by asking the degree of the amount directly:

(16) We use statistics when deciding **how big a handful** of spaghetti we need to cook to feed our family or in...  
(Punchbuggy)

(17) Every morning I ask the Lord **how big a handful** of raisins I should put on my oatmeal.  
(The World of Righteousness)

Interestingly, according to my informants, in the case of *handful* the amount of content (spaghetti / raisins) is modified, but not the container *hand*. This is true of the next example:

(18) Feed each rabbit a **small handful** of hay twice weekly, i.e. two evenly spaced days such as Monday and Thursday.  
(Veterinary Clinical Services)

It seems, however, that this is due to the close relationship between the smallness/bigness of the grabbing hand/fist and the amount of grabbed content: the variable size of the hand correlates with the amount of the content. Therefore we can predict that if this relation is not found concerning the word *handful*, the modification of the container can be available. In fact, this seems to be the case:

(19) a **loosely cupped handful** of coriander leaves  
(Garden Party, Nigel Slater)

In (19), the word *hand* in the word *handful* is interpreted as modified by the adjective phrase *loosely cupped*, since the word *cupped* semantically select the first element
hand of the word *handful*.

The examples considered above provide good evidence to show that <CONTAINER> elements of *-ful* nominals accept the descriptions by the prenominal modifiers.

3. **Theoretical Implications and Speculations**

3.1. **Thesis of the Atomicity of Words**

Di Sciullo and Williams (1987) claim “the inability of syntactic rules to analyze the internal constituency of words” and they also state that “words are ‘atomic’ at the level of phrasal syntax and phrasal semantics.” In other words, words are opaque to all sentence-level operations or descriptions. (p. 52) The “atomicity of words” explains the problems of genericness, pronominal reference, referential island, and wh-movement as in the following examples:

(20)  [bank robber]  (genericness)

(21)  *[it robber]  (pronominal reference)

(22)  *[Bill admirer]  (referential island)

(23)  a.  *Who is John an [t admire]  
    b.  *[How complete –ness] do you admire  
    c.  *The who-killer did the police catch

They claim that the atomicity of words holds of everything below and including compounds in the hierarchy (p. 52):

(24)  Sentences, NPs and VPs, compounds, affixed words, stems, roots

It is true that the clear line between phrases and compounds explains a lot, but it is not totally adequate. Giegerich (2005), analyzing associative adjective-noun (henceforth, associative AdjN) constructions, argues that some of them have phrasal properties and others have lexical properties, with former examples being *bovine disease/tropical fish*, latter examples being *papal murder/musical clock*.

Giegerich points out that even the lexical associative AdjN constructions, which are analyzed as clearly “compounds” by the consideration of stress patterns, allow the pro-one construction:

(25)  a.  Is this the medical building or the dental one?  
    b.  Do you have a medical appointment or a dental one?  
    c.  Is this the general hospital or the mental one?  
    d.  Is this the Arts Faculty or the Medical one?  
    e.  Is he a legal advisor or a financial one?

He concludes that “there are actually individual associative AdjNs (*dental building, mental hospital* etc.) which are simultaneously lexical entities (compounds) in some
respects and syntactic entities ('phrases') on other respects," and claims that "the lexicon and the syntax are not separate, distinct modules in the grammar. They overlap." (p. 588)

The facts about associative AdjN compounds as well as -ful nominals exemplified in section 2 strongly suggest that the thesis of the atomicity of words proposed by Di Sciullo and Williams should be modified so as to account for the complexity of compounds in English. Compound words should be treated more carefully with respect to "atomicity of words."

In the next section, some ideas for analyzing -ful nominal compounds will be considered.

3.2. Why the <Container> in the -ful Nominal Is Describable

This section considers why you can modify the container elements of the -ful nominals.

Let us consider the categorial status of -ful nominals first. I have been following Jespersen (1933) and Quirk et al (1985) in assuming that -ful nominals are compounds, although dictionaries such as The Concise Oxford Dictionary of Current English, COBUILD, Kenkyusha English Japanese Dictionary treat -ful of -ful nominals as a suffix with the implication that the -ful nominals are derived nouns.

Jespersen refers to "-ful words" as compounds in his works. If we understand his use of the word compound literally, it follows that the -ful nominals are compounds and in turn -ful is a word. Jespersen also states that "the original meaning and vowel are preserved in the substantive like spoonful, basketful, etc." (p. 46) The pronunciation of -ful in the examples in (1) is [ful], not [fal]. See also Quirk et al (1985) for the treatment of words like spoonful and bucketful as compounds.

The question we must consider next is the internal structure of -ful nominals. Consider the following examples:

As Selkirk (1982) defines, in most compounds in English the category of the whole word is the category of the rightmost element of the compound.

Di Sciullo and Williams (1987, p. 26), considering more extensive data of compounds of various languages, defines heads "relatively," as in (27):

(27)  Definition of "head_F: (read: head with respect to the feature F)

The head_F of a word is the rightmost element of the word marked for the feature F.

This definition implies that the rightmost elements of compounds are not always a head of compounds. This definition is applied to the words with the inflectional affix, the words with the derivational affix, and the compound words. The head defined in
this way is referred to as “relativized head.”

Keeping these definitions in mind, let us consider the structures of -ful nominals:

(28) a. [spoonful] (singular)
   b. [spoonsful] (plural)
   c. [spoonfuls] (plural)

Consider first the categorial features of -ful compounds. It is reasonable to assume that the category of the whole nominals in (28) is Noun. Spoon is a noun. Assuming Jespersen’s treatment of -ful nominals as compounds, the element -ful is reasonably taken to be a word and more specifically an adjective. (Remember the pronunciation and the meaning of -ful.) Then two possible structures of (28a) are the following (where ct is short for container):


Just suppose that (29a) is the structure of spoonful, putting aside (29b) that contains the zero affix whose existence is not clear. Notice that the head with respect to the categorial feature is bucket in (29a).

Let us now turn to the point at issue, that is, why the <container> part of the -ful nominal compound is modified, using the example in (14). The partial structure of gloriously heaped spoonful in (14) would be as the next:


In (30) the adjective phrase gloriously heaped modifies the noun spoon across the outer brackets labeled as Noun. So the outer brackets of this compound are “see-through” with respect to the prenominal modification. The brackets of -ful compounds are not “strong” enough to prevent the prenominal description. I assume that the properties of the head of the word determine the properties of the whole word. Because we assume the relativized heads, the properties of the component parts of the word can be those of the whole word. If the brackets of the whole word represent the unity of the elements inside and its property, it is reasonable to assume that the strength/property of the brackets depends on the type of elements inside the brackets and some property of the brackets may allow the external description. A container noun plus -ful adjective compound may be such a unit.

In the case of -ful nominal compounds, pro-one construction is not available differently from the case of associative Adj N compounds. So it seems natural to assume that the applicability of the syntactic operations and descriptions depends on the features/properties of the individual entire compound.

My proposal, though speculative and informal and very intuitive, is to put into consideration the features of the whole compound which are determined by the
composing elements of that compound. What kinds of the features on the entire compounds make them opaque to what kinds of syntactic operations and descriptions still remains as a future topic to pursue. Assuming the atomicity of words and the hierarchy (24), it can be said at least that the single label of *compounds* does not explain the facts about compounds thoroughly.

4. **Conclusion**

The present study has investigated the English *<CONTAINER> plus -ful* constructions in English, called *-ful* nominals in this paper, and clarified that *-ful* nominal compounds allow the prenominal adjectives to modify the element of the compound.

The reason for the ability of the adjective phrases to modify the container nouns of *-ful* nominals is not clear to me, but intuitively, I speculate that some strength of the unit of the container noun and *-ful* is not strong enough to bar that modification. That strength might be related to a special combination of the composing elements of the compounds, or the history of the individual compound, or to the familiarity of the compounds.

I believe, however, that *-ful* nominals considered in this paper as well as other types of compounds such as associative AdjN compounds will give some clues to the better understanding of the relation between the atomicity of words and the compounds.

**NOTES**

* This is a modified version of the part of my paper “Setsubiji *-ful* Saikou (Reconsideration of the Suffix *-ful*),” read at the 58th annual meeting of Chugoku-Shikoku Branch of English Literary Society of Japan, held at Kagawa University, on October 29th, 2005. I would like to express my thanks to those who gave me useful suggestions and warm words of comments at the meeting.

1 As for compounds in Japanese, see Kageyama and Shibatani (1989), which claim that a distinction between “syntactic compounds” and “morphological compounds” should be made.

2 Consider the pronunciation of adjectives with the suffix *-ful*:

   i) careful, dreadful, cheerful, beautiful, joyful, regretful…

In (i) adjectives are created by attaching the suffix *-ful* to the abstract nouns that denote the entities that are considered to fill some place with.

3 There also seem to be many minute restrictions on the descriptions of the container elements of *-ful* nominal words. One such restriction can be seen in the next example, which Akmajian and Lehrer (1976) judge not to be totally acceptable:

   i) ?A green wallful of paintings is the decorator’s plan.
It seems that the prenominal modifier has to be "relevant" enough to the primary functions and properties (size, shape, material etc.) of the container described by the container noun of the -ful nominal.

REFERENCES


DICTIONARIES


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