A Systemic Functional Study of the Head Identification of the English Nominal Group

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Abstract—Head identification is the first and crucial step in describing and analyzing the English nominal group. The literature to date indicates that the way of identifying the Head of the English nominal group varies from one school of linguistics to another and even from one grammarian to another. This paper focuses on the English nominal group containing the word of and the research is conducted from the systemic functional linguistics perspective.

Index Terms—head identification, the English nominal group, systemic functional linguistics

I. INTRODUCTION

The Head is the essential element in the English nominal group. Sinclair (1991, p.p. 86-87) points out that “the identification of headword is the first step in describing a nominal group” and “it is reasonable to expect the headword of a nominal group to be the principal reference point to the physical world” (ibid.). The literature to date indicates that the way of identifying the Head of the English nominal group varies from one school of linguistics to another and even from one grammarian to another. The debate over the Head identification mainly occurs in respect to the nominal groups presented in the following examples in (1), (2), and (3). These types of nominal groups all contain the frequently occurring word of in English.

(1) a pack of cards
(2) a number of those books
(3) five of those books

In practice, at least three aspects need to be clarified with regard to the nominal group of these kinds, the Head identification, the analysis of the whole structure of the nominal group by delicacy, and the functional description of the nominal group with a number of. This paper is concerned with the Head identification only. This paper begins with the recapitulation of the relevant approaches to the Head identification first, including the traditional analysis and the systemic functional analysis. The discussion will then progress to our own consideration of this issue from a systemic functional perspective.

II. TRADITIONAL IDENTIFICATION

Jespersen (1924/2008) does not have the explicit description of the Head, but his Three Ranks theory implies the analysis of the Head of the matrix nominal group. The Primary is the Head, the Secondary is the Modifier of the Head, and the Tertiary is the Modifier of the Secondary. Likewise, although the transformational depiction of the nominal group does not make the obvious statement about the Head, we can still find the semantic focus of the group in the whole group structure.

In traditional grammar and formal grammar or descriptive grammar, both the Premodification and the Postmodification in the English nominal group modify the Head. These two kinds of modifications are so named because of the position preceding or following the Head, and they are at times known as pre-attributive and post-attributive (Zhang, 1995; Zhang, 2002, 2008). According to Quirk et al. (1985, p. 1238), the Head in the English nominal group is that part “around which (for the most part) the other constituents cluster and which dictates concord with other parts of the sentence”. This definition shows that if the nominal group functions as the Subject, the predicate verb must agree with the Head of the nominal group that functions as the Subject. Huddleston and Pullum (2002, 2005/2008) argue that the predicate verb does not always concord with the Head of the nominal group that functions as the Subject. Richards, Platt and Platt (1992/2000, p. 207) define the Head as “the central part of phrase”, and “the other elements in the phrase are in some grammatical or semantic relationship to the head” (ibid.).

All these arguments consider the Head as an essential and obligatory part of the nominal group, and the identification of the Head determines the corresponding description of the internal structure of the whole group. Based on these principles, there are two main ways of analyzing the nominal group as exemplified by the three presented above. The relatively consentaneous way is to treat a number of as the Premodifier, and books as the Head, but Huddleston and Pullum (2002) regard number as the Head, and of-phrase as the Postmodifier. As to the example (1), one way is to treat pack as the Head and of-phrase as the Postmodifier, and the other way is to consider cards as the Head and the whole a pack of as the Premodifier. When it is concerned with the nominal group in (3), the most common identification is to...
label *five* as the Head and of *those books* as the prepositional phrase as the Postmodifier.

**III. Systemic Functional Identification**

The identification of the Head is also the first and significant step in the systemic functional analysis of the English nominal group. This section will take a brief look at the SFL way of defining the Head of the three types of nominal groups listed above.

Halliday (1985, 1994/2000) and Halliday and Matthiessen (2004) depict the English nominal group from the experiential and the logical dimensions. In the experiential structure, the semantic core of the nominal group is treated as the Thing, while in the logical analysis the Head is considered as the semantic focus of the whole group. Both the experiential and the logical analyses are systemic functional ways of looking at the nominal group and they differ from the traditional and the transformational analyses in many aspects. The Thing in Halliday’s analysis has much the same sense as the Head in other approaches.

In most cases, the Thing and the Head of a specific nominal group coincide with each other, but they do not in the nominal group with measure and facet expression like the three examples given above (Halliday 1994/2000, p. 195). If we take the nominal group *a pack of cards* for an example, the Thing is *cards* from the experiential perspective, but the Head is *pack* from the logical perspective. Table 1 below provides the systemic functional analysis of the nominal group *five of those books*, which does not contain a measure word or a facet item.

![Table 1: Analysis of a Nominal Group with the Cardinal Numeral as the Numerative](image)

The above table demonstrates, by delicacy, the SFL analysis of the nominal group of this kind. The Thing is *books* in the experiential structure, while the Head falls on *five* in the logical structure in this construction. As to the word class, *five* is a numeral and of a preposition.

Thompson (1996/2000) does not overemphasize the distinction between the Thing and the Head. On the contrary, he seems to prefer the term Head in his analysis. Following is an example taken from Thompson (1996/2000, p. 183).

![Table 2: Analysis of a Nominal Group by Thompson (1996/2000: 183)](image)

According to Halliday (1994/2000), the item *decision* in the nominal group should be termed as Thing, simply because Thing, rather than Head, is supposed to correspond with functional slots such as Deictic, Epithet and Classifier. Likewise, Head ought to co-occur side by side with Premodifier and Postmodifier. This kind of correspondence is just the same as that of Theme-Rheme, Subject-Finite, or Actor-Process in the clause level. It is not appropriate to say, for example, that *He* is the Subject, and *is a teacher* is Rheme in the clause *He is a teacher*. However, if we examine it further, we can understand it as a kind of integration, and this may suggest that Thompson (1996/2000) may support the argument of the conflation of Thing and Head. Although Thompson (1996/2000) does not provide the analysis of the nominal group with *a lot of*, he does regard the whole construction of *a lot of* as the numerical expression, which means the noun after this expression is the Head of the matrix nominal group.

Bloor and Bloor (1995/2001, p. 145) offer, by delicacy, the analysis of the nominal group as is shown in (4), which indicates that they concur with Halliday (1994/2000) on this issue. *First* in the experiential structure is labeled as the Numerative expressing the ordinal property of the group, but as the Head in the logical perspective. Evidently, the Head and the Thing do not coincide with each other in this nominal group. Next section will reveal that the Cardiff Grammar presents different views on this construction.

(4) **the first of many steps on the road to ruin**

The Cardiff Grammar emphasizes its simplification as well as extension to Halliday’s SFL especially in the aspect of lexicogrammar. The Cardiff Grammar does not take the approach of analyzing the English nominal group from the two perspectives as Halliday (1994/2000) does, and consequently it does not have the distinction between Thing and Head in its framework. Instead, the Cardiff Grammar has its own standpoint in defining the Head of the nominal group. In addition, any element including the Head in the nominal group does not begin with a capital letter, and only the element of the clause does.

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Fawcett (2000, p. 215) contends that the Head of a nominal group “tells us the ‘cultural classification’ of the object in terms of the culture associated with the language”, and the modifier “tells us ‘what sort of thing it is’” (ibid.). The item expressing the cultural classification is treated as the Head of the matrix nominal group, and the quantifying expression, for instance, and the optional selector are treated as sister elements to the Head.

In the Cardiff Grammar, both the Head and the other elements of the nominal group describe the referent of the matrix nominal group. The function of the Head is to clarify the cultural classification of the referent, and the function of the other elements is to realize other properties of the referent (Fawcett 2000, p. 216-217). It ought to be noted that the Head is also regarded as the obligatory element in the nominal group, and the other elements add more information to the Head in one way or another. If the Head element of a nominal group is omitted, the group loses its nominal nature. In other words, a great change would accordingly occur to the whole group both grammatically and semantically. Theoretically speaking, other elements in a nominal group are optional and the omission of any of them will not change the syntactic function of the nominal group although the semantic changes cannot be avoided, for the change in whatever way may cause the change of meaning.

The subsequent part of the present section will use the same example to show how the Cardiff approach analyzes the English nominal group. Still, we use the above four examples, (1), (2), (3), and (4), to see the Cardiff identification of the Head of the nominal group of this kind. According to Fawcett, these four nominal groups all contain selection. Selection is a concept in the Cardiff Grammar only and has many types.

It should be pointed out in the first place that Fawcett claims that the above four nominal groups have absolutely the same structure. Fawcett (2007, p. 183) points out that of, which is termed in these four nominal groups as a selector, is a sister element to both five and those books. Figure 1 below shows the Cardiff approach to the analysis of the nominal group of this kind, and in the analysis five is labeled as the quantifying determiner (qd), and books as the Head. The unit (nominal group (ngp)) is composed of (denoted by the long beeline “/\”) the four elements (quantifying determiner (qd), selector (v), deictic determiner (dd) and head (h)). These elements are respectively expounded by (denoted by the isosceles triangle “△”) the items.

This is a tree diagram presentation, but we can also use the linear way to show the analysis for the sake of saving space. The linear way of describing these nominal groups is shown as follows:

$a\ pack$ [qd] of $[v]$ cards $[h]$

$a\ number$ [qd] of $[v]$ those $[dd]$ books $[h]$

$five$ [qd] of $[v]$ those $[dd]$ books $[h]$

$the$ [dd] first $[od]$ of $[v]$ many $[qd]$ steps $[h]$ on the road to ruin $[q]$

We can see at a glance that these four nominal groups have the identical structure. So far, this section has clarified the various ways of identifying the Head of the same nominal group, and the section that follows will comment on identifying the Head of the nominal group of this kind from the SFL perspective.

IV. DISCUSSION

This section will discuss the Head identification to the nominal groups. The nominal groups in (1) and (2) belong to the same type in terms of the functional structure, and those in (3) and (4) belong to another type, although superficially they have the same structure.

First, introduction of the concept of selection is of great help in disclosing the internal relationships among the elements in the nominal group such as five of those books and the first of many steps on the road to ruin. In this section we explore only the aspects relevant to the Head identification. Of in these two nominal groups does not have the same function as a preposition does. According to Fawcett (2006, 2007), every nominal group has a referent, and the referent expressing the cultural classification is identified as the Head. In the group five of those books, the item books is the element depicting the cultural classification in that books is a kind of object distinguished from other objects in the world. The referent of five is selected from that of those books.

This principle is reasonable, but we still want to ask a question: Since the referent of five is selected from that of
those books, can we just treat five as the Head of the matrix nominal group? One reason may be that five is a numeral but the Head of the nominal group ought to be a noun, or a pronoun. In other words, it is books in this nominal group that expresses the cultural classification. The item five does not denote the cultural classification, and it is just a quantifying expression.

However, if we investigate further, we find that the item five has the complete property of a nominal group, for, above all, only the nominal group can have a referent. Besides, selection only occurs between at least two referents, the substantial referent and the widest referent. When the substantial referent is selected from the widest referent, they belong to the same class in terms of “cultural classification”. If five is not a nominal group, how can selection occur? Five represents the substantial referent in the matrix nominal group structure.

On the other hand, when the referent of five is selected from that of those books, five, which actually means five books, also denotes the cultural classification. This is not contradicted to the principle that the Head is the element expressing the cultural classification. Five is a nominal group with a covert Head, and it does not serve as a quantifying determiner as it is in five books. This argument has its theoretical basis in that Halliday (1994/2000, p. 185) points out that common noun, adjective, numeral and determiner are all different kinds of nouns. In addition, Morley (2000) argues that the nominal word can function as the Head of the nominal group.

Actually, the function of the element in the nominal group is not decided by its word class. The location of the element and its collocation with the other elements are the significant factors to determine its functional role in the whole group. This is why we take five in five books as the quantifying determiner, but the Head in five of those books. Simple as it is, five in the latter case has the qualification to express the cultural classification.

Another reason to consider five as the Head in five of those books is that the semantic focus is on five (books) not on those books. If we say I want five of those books, what I cares about is five (books), not those books.

Following are three examples that can further exemplify this viewpoint.

(5) a friend of my father’s
(6) some daughters of Mrs. Green’s
(7) two novels of Dickens’
(Zhang, 1995, p.p. 77-78)

These three examples are also very common and normal expressions in English, and they have the identical structure to the nominal groups in (3) and (4). Here, the elements indicating the cultural classification are respectively friends, daughters, and novels, so they are quite naturally each the Head of the matrix nominal group. The functional structure of these three nominal groups is identical to that of the following modified ones.

(5a) one of my father’s friends
(6a) some of Mrs. Green’s daughters
(7a) two of Dickens’ novels

Not only the structure but also the semantic focus is identical. Then, why do we say the Heads are different? In this sense, one, some and two are three nominal groups with the covert Heads friend, daughters, and novels, so they are quite naturally each the Head of the matrix nominal group in which they are embedded.

According to the Cardiff Grammar, my father’s, Mrs. Green’s, and Dickens’ are all genitive clusters used as the deictic determinant. In our analysis, however, the function of these genitive clusters in (5), (6) and (7) is different from that in (5a), (6a) and (7a). My father’s, Mrs. Green’s, and Dickens’ in (5), (6), (7) are three nominal groups with the covert Head friends, daughters, and novels, but in (5a), (6a) and (7a) they are genitive clusters used as deictic determiners.

We can have a survey of another example (8) in which the nominal group is used in the specific clause in actual use.

(8) The scholarly aspects of this book are manifested in two ways. The first and most obvious is in the many detailed and sometimes extended footnotes.
(Fawcett 2008, p. 7)

The expression, The first and most obvious, in the above clause is definitely a nominal group, with the Head omitted, or a covert Head way. It has an anaphoric reference, while the first in Example (4) has a cataphoric reference.

Accordingly, the nominal groups in (5), (6) and (7) have the same functional structure as those in (5a), (6a) and (7a), although the stress is slightly different. Similarly, the nominal groups in (3) and (4) have the modified version as follows in (3a) and (4a).

(3a) five books of those
(4a) the first step of many on the road to ruin

In practice, the different forms are used to realize the same meaning so that we can say that one form is congruent and the other is metaphorical. So far, we have presented our way of identifying the Head of the English nominal group containing selection based on the “cultural classification” principle. When selection finds its place in the nominal group, the matrix nominal group must have two sub-nominal groups representing two referents. The substantial referent is selected from the widest one, and both of the two types of referents express the cultural classification. As to the examples (1) and (2), it is argued in this study that the Head of the two nominal groups are respectively cards and books.

The above section conducted the Head identification, and this section will use Halliday’s criterion to bring forward
further thinking on this issue. The focus is still on the nominal groups that have been dealt with in the above section of this paper.

According to Halliday (1994/2000), Thing is the semantic core of the nominal group. Thompson (1996/2000) regards the Thing as what is being talked about. For example, in the nominal group *those two splendid old electric trains with pantographs, trains* is the Thing, and the other elements add more information and property to the Thing.

In analyzing the nominal group *five of those books*, as is shown in Table 1, *books* is labeled as the Thing, and *five* as the Numerative. In terms of word class, *five* is a cardinal numeral. Table 3 below provides the delicate analysis of the nominal group in (4) with an ordinal numeral.

Evidently, the Thing and the Head of this nominal group do not coincide with each other. The Qualifier is a prepositional phrase in which the preposition *on* has a Complement realized by another nominal group *the road to ruin* that contains the Deictic *the*, the Thing *road* and the Qualifier *to ruin*, which is another prepositional phrase. The structure has a sense of recursion when one nominal group is embedded in one prepositional phrase, and another prepositional phrase is embedded again within another nominal group.

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<td><strong>ANALYSIS OF A NOMINAL GROUP WITH ORDINAL NUMERAL AS NUMERATIVE</strong></td>
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The discussion so far seems to be done by great delicacy, but we still find a problem with the experiential analysis in that the function of the word *of* in the matrix nominal group has not been stated. Apparently, *of* is not an element embedded in the structure of the Numerative. Rather, it is an element that is embedded in the whole nominal group. In other words, it has the same status as the Numerative, the Thing and the Qualifier in the structure. In like manner, this argument is also true to the structure of *five of those books*, as these two nominal groups have the identical structure. We can compare these two nominal groups with the following ones, which have the similar but different structures.

(3b) *five books*
(4b) *the first many steps on the road to ruin*

When *of* in the two nominal groups is omitted, their structure also experiences great change, and this change accords with the “choice is meaning” (Huang, 2001, p. 44) principle in the systemic functional syntax analysis. The function of the items *five and first* in (3b) and (4b) is obviously different from that in (3) and (4). *Five and first* without any question are numerals expressing the numerical information serving as the Numerative in *five books* and the *first many steps to ruin*. Comparatively, *five and first in five of those books and the first of many steps to ruin* have the different sense in that *five* here stands for *five books* and *first for first step*. By virtue of this slight degree of nuance in meaning, we can identify *five and first* as two nominal groups instead of two numerals. The Thing of these two nominal groups is the same as the Thing of the matrix nominal group. Technically, they each have a covert Thing that can be identified from the whole structure. In the logical structure, they function as the Head of the matrix nominal group.

The prior section pointed out that it is not appropriate to include *of* as a part of the Numerative. Then, can we treat *of* in the two nominal groups of (3) and (4) as a preposition? If it is a preposition, the element after it must be the Complement and the prepositional phrase accordingly functions as the Qualifier. In this way, the Thing of the two nominal groups is supposed to be the element before the Qualifier, and the Thing is *five and first* respectively in the two nominal groups.

We now proceed to the nominal groups in (5), (6) and (7) to see the similarities as well as the distinctions between these three groups and the two groups in (3) and (4). We have discussed the qualification of *five and first* to become the Head respectively in the structure *five of those books and the first of many steps on the road to the ruin*. These two nominal groups have the identical structure to the three in (5), (6) and (7). Explicitly, the Thing and the Head of these three nominal groups are respectively *friends, daughters* and *novels*. Furthermore, my father’s cannot be simply labeled as the possessive case of the noun. In nature, it is a nominal group with the covert Head that is meanwhile the Thing of the whole group.

Thus, a conclusion is drawn that the nominal groups from (3) to (7) have the identical structure in that the element before *of* can function as the Head or even Thing of the matrix nominal group. In this sense, according to our analysis above, the Head is the Head of the Thing. Then, another question arises: If the Head and the Thing are conflated, as in (5), (6) and (7), how should we analyze the functional structure of them by delicacy? We will discuss this issue in another paper.

V. SUMMARY AND CONCLUSION

This paper focuses on identifying the Head of the nominal groups listed in examples from (1) to (7), or more specifically from (3) to (7). At the beginning, we recapitulated the various approaches in identifying the Head of the
English nominal group, including the traditional approach and the transformational approach. This was followed by the concentration on the SFL approach to the Head identification. It was presumed that the element expressing the cultural classification and semantic core in the nominal groups serves as the Head (or Thing). In the third step, we used these theoretical bases to look at the structure of the nominal group of this kind from an alternative perspective.

It was argued that the referent of the Head is selected from that of the Thing. Head and Thing belong to the same cultural classification, and they may or may not coincide with each other. Besides, the analysis suggests that this identification does not contradict the SFL criterion of what roles the Head or the Thing play. Meanwhile, the discussion indicates that of is embedded neither in the structure of the Numerative element nor in the prepositional phrase. Rather, it is supposed to be a special word having specific function in these groups. So far, it has been indicated that the introduction of the concept of selection is of great value and help to solve this problem.

With regard to the focus of the present paper, we can conclude that the selection is necessary, but the structure of the nominal group containing selection needs to be observed from a different perspective. We stated earlier in this paper that the examples used here are just one type of selection among many, the quantifying selection. More details of other types of selections and the related explorations will be discussed in other papers.

REFERENCES


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