

NOUN GROUPS, THEIR ELEMENTS AND THEIR SYNTACTIC FUNCTION IN THE CLAUSE: AN ANALYSIS OF ABSTRACTS OF SCIENTIFIC TEXTS IN ENGLISH

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ABSTRACT

This paper is aimed at showing the results of a research on English Syntax, concerning the structure of noun groups (NGs) and their syntactic function in the clause. The study is part of a broader research on how NGs are empirically manifested in the English language, particularly in academic texts. It sets off to investigate the NG in English from a theoretical perspective, particularly a functional-descriptive approach to language. The theoretical background of the research is based on Chafe (1994), Downing and Locke (2006) and Halliday (2004). In order to accomplish the objective in focus, NGs of five scientific abstracts were selected and analyzed. They were classified according to their complexity in terms of the presence of non-nuclear elements (determiner, pre-modifier and post-modifier) and according to their syntactic functions (subject, direct object and completive in prepositional groups) in the clause above them. The main results were that the first most common structure was the one with the head, pre- or post-modifier and the determiner as optional, and that, for the second most common, the subjects were less complex than the objects. This points to the fact that NGs at Direct Object, for instance, tend to display a more complex structure when compared to the NGs realizing Subject. We speculate that this may be due to the text genre and mainly to the fact that Subjects are usually *light*, whereas objects tend to carry heavier information that usually requires more language complexity in order to be conveyed.

Keywords: English syntax, complexity of noun groups, syntactic function, text genre.

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1 RESEARCH OVERVIEW

This paper contains an analysis of the structure of noun groups (NGs) in relation to their syntactic function. This comes from the observation of NGs as in subject and object in sentences taken from five scientific articles in the area of Chemistry. The aim of the paper is to investigate the degree of complexity of these NGs concerning the presence of non-nuclear elements (i.e. determiner and modifiers) and its relation to the syntactic function of NGs under analysis. In order to achieve that purpose, NGs were taken from the abstracts of five scientific articles in the area of Chemistry and separated according to their complexity and their syntactic function. These classifications were contrasted in order to see how the relation between the complexity of the noun groups and their function in the sentence works in this genre. The abstracts were taken from the *Canadian Journal of Chemistry*, the *Chemical Science* (a British journal), the *Journal of Brazilian Chemistry Society*, the *Australian Journal of Chemistry* and the *Journal of the American Chemistry Society*.

2 THEORETICAL REFERENCE

2.1 The noun group

The noun group is a unit which has a noun as its center. Therefore it is related to entities that can be concrete, abstract, concern qualities, emotions etc. These entities are called the head of the noun group and contain its most important information. Additional elements can be placed either before (pre-head) or after (post-head) the head. These elements may be realized by adjectival groups, clauses (either finite or non-finite) and even by other noun groups, with the same structure, in the case of pre and post-modifiers. In terms of the determinative function, determiners can be realized by several different groups and other classes of words, e.g. genitive case, possessive case, pronouns etc. (QUIRK *et al.*, 1985).

The head is usually realized by a noun or a pronoun, and even by a substitute head or by adjectives.

- (1) The strange man is looking at the car.
- (2) He was at the club last night.

In (1), 'The strange man' and 'the car' are the noun groups of the sentences. The first is composed by a determiner ('the') and a pre-modifier ('strange'), despite the head, 'man'. On the other hand, the second example has only a determiner, 'the', and the head, 'car'. As we can see, the NG can have as many elements as the reader / writer wants, as long as the group in a whole makes sense.

The information before the head can be perceived by two different elements: the determiners, which particularize the noun by references, relating it to the context, possessives, WH-words, distributives and quantifiers, and the pre-modifiers, which describe or classify the referent. When pre-modifiers describe the head noun, they attribute qualities and, for this reason, they are realized by adjectives (epithets); when they classify, they place the referent in a sub-class (classifier). In the case of classifiers, they are usually realized by nouns or by certain non-gradable adjectives. This distinction can be seen in the examples 3 and 4 below:

- (3) The American student is very intelligent.
- (4) He wrote a long text.

In (3), 'American' is the pre-modifier which pulls the head 'student' out of a group of students, specifying it. Therefore it is a classifier. On the contrary, the pre-modifier in (4) expresses a more permanent characteristic of the head. For that reason, 'long' is an epithet for 'text'.

As for the post-modifiers, they come after the head, and help define or identify the referent. They are realized by finite and non-finite clauses, by prepositional groups, by other noun groups or by adverbial groups.

- (5) The book which I am reading is excellent.
- (6) He went to the club on the corner of the street.

Examples (5) and (6) show the presence of post-modifiers as elements that give additional information about the head. In the first example, 'which I am

reading' limits the idea of the head 'book'. It is a post-modifier realized by a finite relative clause. The second example has a post-modifier realized by a prepositional group, 'on the corner of the street', which is realized by a prepositional group.

2.1.1 The head

The first and most important element of every group in syntax is the head. In the noun group, the head can be realized by some classes of words, usually nouns or pronouns. To know the type of word that is used is essential to understand the complexity of the group as a whole, in terms of the necessity of the other three elements. According to Downing and Locke (2006) the head can be realized by three types of word: common nouns, proper nouns and pronouns. In this project, we will focus on the common nouns, which were more frequently found in the corpus studied. The common nouns, according to these authors, are the ones that have number contrast. The number is divided into singular and plural. The latter can be a regular plural (formed by the addition of suffix) or an irregular plural (formed by a change of vowel, by consonant change or zero plural – the singular form is the same of the plural form). With reference to countability, the nouns are classified into count (referents can be counted) and non-count (referents that are non-countable mass entities. Quirk *et al.* (1985) add to this classification the dual class membership, in which nouns have different classifications, whether they are count or non-count. In general, this distinction is given by the use of articles before the noun: when there is an article, the noun is countable; when there is zero article ², it is non-countable. In some cases there is difference in meaning between countable and non-countable forms; in others, there is little. Some nouns refer to smallness or shape and suggest a minimal part of another noun.

² There is a difference between the terms 'zero article' and 'no article'. 'Zero article' is used for when there is article contrast; 'no article' is used for terms that do not have this distinction (QUIRK; GREENBAUM, 1985).

2.1.2 The determiner

The determiners, as many grammarians in general agree, have the basic function of identifying the referent in the NG. According to Downing and Locke (2006), they particularize the referent, whilst Carter and McCarthy (2006) state that they indicate the type of reference made in the noun group. Downing and Locke (2006) postulate that this particularization occurs by the determiner ‘telling us which or what or whose it is, how much, how many, what part or degree of it we are referring to, how big or frequent it is, how it is distributed in space or time’ (DOWNING; LOCKE, 2006). Therefore determiners, indicate number, quantity and possession by performing a deictic function in the NG.

Additionally, determiners can modify determiners themselves, that means, determiners can be pre-modified or post-modified by other determiners:

- (7) ‘Almost **all** libraries have got quite a lot of information on those sorts of things.’
- (8) ‘Many **more** professional couples are opting for larger families.’
- (9) ‘**All** but one of the 16 stock markets continued to recover this week.’

In these examples, it is possible to see that the determiners in boldface are modified by items before them, such as in (7) and (8), and by items after them, like in (9) (CARTER; MCCARTHY, 2006). These are called closed-system determiners, which occur as determinatives either of the head or of other determiners, according to their position in the noun group. This position divides them into three classes: pre-determiners, post-determiners and central determiners. The pre-determiners happen before other determiners and are usually quantifiers or partitives:

- (10) ‘**all of** the meat’
- (11) ‘**both of** the students’

On the other hand, post-determiners occur after the head and before adjectival groups. They are usually cardinal, ordinal and general numerals:

- (12) ‘The **first** three planes were American.’

(13) 'His two **last** books were novels.'

The central determiners are the basic determiners that relate to the head and are modified by the pre- and post-determiners. The most common are the definite and indefinite articles ('the', 'a' and 'an', and some pronouns: 'this', 'that', 'every', 'each' etc.

Downing and Locke (2006) classify the determiners according to their function in the noun group, treating them as determinatives. In this classification, they are divided into possessive, demonstrative, Wh-determinatives, quantifiers and distributors. Carter and McCarthy follow this division (CARTER; MCCARTHY, 2006), but Quirk *et al.* (1985) classify the determiners according to their occurrence: all classes of nouns, plural count nouns and non-count nouns etc.

Another approach related to determiners is on the type of reference they bring to the referent: definite, indefinite or generic. The definite reference, according to Downing and Locke (2006), occurs with the definite article 'the', a deictic determinative ('that', 'this', 'these' or 'those'), or a possessive adjective ('my', 'your' etc.). The indefinite reference, on the other hand, is realized by an indefinite article ('a' or 'an'), unstressed 'some' and 'any' or by zero article.

In this regard, it is important to mention that indefinite articles (a, an) refer to new information, while definite articles ('the') refer to old information (HALLIDAY, 2004)

(14) I bought **a** car yesterday.

(15) **The** car that I bought is very fast.

In (14), 'a' gives the car a very generic idea, which is not supposed to represent new information to the interlocutor. The article 'a' simply points to the head in a bigger group, without specifying it, since it refers to given information. On the other hand, in (15), the head 'car' is mentioned again. Therefore, since it is already a specific car, even if its characteristics have not been given, it was necessary to use the definite article 'the'.

2.1.3 The pre-modifier

The third element of a noun group to be described here is the pre-modifier. According to Downing and Locke (2006), it is the element responsible for describing or classifying the referent. The pre-modifier is realized mostly by adjectival groups and nouns. The adjectives tend to be gradable while the classifiers tend to be non-gradable, as shown in (16) and (17).

(16) The **beautiful** girl.

(17) The girl is **beautiful**.

When nouns are used as pre-modifiers, they are usually regarded as compound with the head. In this case, the correspondent is a prepositional group.

(18) his **life** story

(19) the story **of his life**

In (18), 'life' is the pre-modifier of 'story'; this group has (19) as correspondent, in which 'of his life' is the prepositional group that post-modifies the noun 'life'. When the noun that is pre-modifying another noun is of the attributive kind, it is considered number-neutral. That means, they are plural in post-modifying position, but singular in pre-modifying position.

There are different classifications for the pre-modifiers, according to the characteristic that is being highlighted. Quirk *et al.* (1985) classify these units into restrictive and non-restrictive. The restrictive kind occurs when the pre-modifier is given prosodic prominence, that means, when it is stressed in the group; this happens when there is no post-modifier. On the other hand, another classification for the pre-modifiers is into epithet and classifier. The epithet ascribes 'a quality (*big, old, red* etc.) to the referent. This may be an objective quality (e.g. a *square* box, a *round* table, a *blue* truck, *old* magazines) while others are subjective and represent the speaker's or writer's attitude towards the referent (*good, bad, nice, stupid, lovely, horrible* etc.)' (attitudinal quality)³ (DOWNING; LOCKE, 2006); the objective epithets are experiential, while the attitudinal ones are interpersonal.

³ This is not a rigid division.

Although there is this distinction, some adjectives can be applied in both cases, such as the adjective ‘poor’:

(20) Poor man!

(21) There is a poor woman at the door.

In (20), ‘poor’ has the idea of pity, it reveals an opinion of the speaker about the man. Therefore, it is an attitudinal epithet. On the other hand, in (21), the speaker assigns to the woman a characteristic that is experiential, either visually or according to their knowledge. For that reason, this epithet is considered more objective than the classifier.

The classifiers, differently from the epithets, sub-classify the referent. They are not gradable and they can be realized by a bigger number of elements: adjectives, nouns, ordinal numbers, adverbs, phrases and non-finite clauses. According to Downing and Locke (2006), ‘there is a wide variety of relations expressed, including affiliations to national, political or religious groups; related to norms, sequences, sizes, ratings, scales; related to areas of study, art, science and institutions’. The nouns as classifiers function in the same way that an adjective does, delimiting the referent to the membership of an exclusive set. The noun classifiers are divided into simple, genitive, compound and short NGs. Some nouns can be used both as classifiers and epithets, but of course with different meanings, such as:

(22) fresh bread / fresh water

(23) a provincial attitude / a provincial town

In (22), ‘fresh bread’ means bread that was freshly made and ‘fresh water’ is the kind of water (not sparkling, not salty, not sea-water). In (23), in ‘a provincial attitude’, ‘provincial’ is the description of the attitude; in ‘a provincial town’, ‘provincial’ is the kind of town (DOWNING; LOCKE, 2006).

In any pre-modifier, there can be more than one epithet (multiple epithets) or more than one classifier (multiple classifiers). Quirk *et al.* (1985) limit this number to three or four. When it comes to multiple pre-modifiers, it is important to see how the order works, how different epithets / classifiers are positioned. In both cases, it

is possible to have coordination and subordination, which occur in the same way of clauses: with the coordinative and subordinate connectors:

- (24) good **and** bad news
 (25) unexpected **though** good results

2.1.4 The post-modifier

The post-modifiers are the units that come after the head, providing extra information about the noun. It can either specify the referent (26) or add supplementary information about it (27).

- (26) The man **who is talking to my mother** is her friend.
 (27) This house, **where I lived when I was a kid**, used to be bigger.

When they specify or identify the head, they have a restrictive function; when they only give extra information, they have a non-restrictive or non-defining function. But, despite this division, the units that function as restrictive post-modifiers can also be used as non-restrictive, as seen in (28) and (29). In (28), the post-modifier has a restrictive function; in (29), a non-restrictive one. Many kinds of elements can realize the post-modifiers, such as: finite and non-finite clauses; prepositional phrases; adjectival groups; and appositive NG's (DOWNING; LOCKE, 2006).

- (28) The book **which I was reading** is very good.
 (29) The book, **which I was reading**, is very good.

The relative clauses are finite clauses that begin with a relative pronoun: 'who', 'whom', 'whose', 'which', 'that', 'where', 'when', 'why' and zero (0). Their referent is the head of the noun group and they usually follow the same idea of their use in questions. The only exception is for 'which', which is used with inanimate heads in the object function and before a preposition. The pronoun 'that', on the other hand, is used for both subject and object functions, with animate and inanimate heads, but not after prepositions, neither after a personal proper name. When 'which', 'whom' and 'that' function as objects, they can be replaced by zero

(no pronoun). There are limitations to the use of pronouns for restrictive and non-restrictive clauses. The restrictive clauses have a direct connection with the head and the pre-modifiers of the NG, being an integral part of the meaning of the whole group (DOWNING; LOCKE, 2006). Therefore, they are usually introduced by ‘who’ (with the variant ‘whom’ for personal objects), ‘which’, ‘whose’, ‘that’ and zero. The most recurrent uses of other pronouns are the cases when they have a preposition + pronoun correspondent clause, as in (31) (QUIRK *et al.*, 1985):

(30) The place **in which** I was born

(31) The place **where** I was born

The non-restrictive clauses, on the other hand, are not embedded in the NG matrix structure. They do not specify or identify the antecedent, constituting only of independent information. As for the pronouns used, the only restriction is for ‘that’, which is rarely used (DOWNING; LOCKE, 2006). They are always separated from the NG by a comma (QUIRK *et al.*, 1985).

According to Downing and Locke (2006), the non-finite clauses are the *-ing* (32), the past participle (33) and the to-infinitive (34), which have the same value as finite clauses. For that reason, they are used as more economical resources in communication:

(32) The movie **playing tonight** is beautiful.

(33) The money **stolen by the thieves** was found in the car.

(34) The time **to say goodbye** has come.

Despite the fact that the finite and non-finite clauses are very common post-modifiers, the commonest types are the prepositional groups. They are usually related to be-clauses:

(35) The car outside the station

(36) The car is outside the station

Other types of post-modifiers, which are rarely used, are adjectival groups, which, when used, are modified themselves; adverbial groups, giving circumstances

such as time, place and reason; and the appositive clauses, which have a closer relationship to the head, occurring only with to-infinitive (37) and -ing clauses (38). When they are used, the subject is implied from the context (DOWNING; LOCKE, 2006; QUIRK *et al.*, 1985).

(37) His work, **to serve tables at the bar**, consumes all his nights.

(38) I'm looking for a job **selling books**.

3 METHODOLOGY

For the analysis of the complexity of the groups and its relation with their syntactic function, the units were taken from five abstracts of scientific articles in Chemistry, written in English, from relevant journals in the area. The sources were:

- Brazilian Chemistry Society
- *Journal of the American Chemistry Society*
- Chemical Science (Royal Society of Chemistry, UK)
- *Canadian Journal of Chemistry*
- *Australian Journal of Chemistry*

The reason why academic texts were chosen as the focus of analysis is because they are representative of a very widespread use of contemporary English and therefore they represent a reliable source of empirical language data. Also, in order to carry out a minute analyzes of the NGs operating in the texts chosen, we have decided to focus on short texts that could stand alone in meaning and we thought that abstracts could fit in this purpose.

Due to time and space constraints relative of this paper, we had to choose a subarea or field to illustrate the various degrees of complexity of NGs in abstracts. This is the reason why all the excerpts displayed in the paper come from the field of Chemistry. Also, it is important to highlight that the choice of the Chemistry field does not particularly interfere within the analysis we carry out here, since the complexity of NG is relative to the system of the English language and to the function NGs perform in the clause. This is the reason why we believe that the

phenomenon under study here cannot be taken as topic-oriented, though a study including other academic fields is currently underway.

The NGs in the abstracts were first manually identified and then classified into the syntactic function they realized in the sentences above them. After that, they were classified in terms of their internal structure.

The NG's were separated from the sentences and classified according to the following chart:

Complexity	
1	(d)-h
2	(d)-m-h or (d)-h-m
3	(d)-m-h-m

Chart 1: Classification of the noun groups

In which: (d) = determiner (in parenthesis because its presence is irrelevant for the purpose of this research); h = head; m = pre- and post-modifier.

Further in the analysis, three different classifications were made: one for the noun groups in the subject position, one for the noun groups in the direct object position and one for the completives in a prepositional group (PrepG).

4 ANALYSIS

The results were manually analyzed separately for the subject, the direct object and the completives in PrepG. The separate analysis was chosen because the intent of the research is to see how the nominal groups behave in the syntactic functions themselves, not in relate to each other.

The following chart contains the results for the subject:

Complexity	Number of groups	Percentage
1	11	37,93%
2	13	44,83%
3	5	17,24%
Total	29	100%

Chart 2: Results for the subject

The total number of noun groups in the subject was twenty-nine, out of which, thirteen had the complexity number 2, corresponding to approximately 46%. Excerpt 1 illustrates these findings:

Excerpt 1

- (1) **The QuEChERS method** was employed for extraction and the quantification was carried out by high performance liquid chromatography coupled with diode array detector (HPLC-DAD) and liquid chromatography-tandem mass spectrometry with electrospray ionization source (LC-ESI-MS/MS).
- (2) We find that (i) **the SWCNT quantum yield** is strongly dependent on both the polarity and electrophilicity of the solvent and (ii) solvatochromic shifts correlate with the extent of SWCNT solvation.

In the excerpts (1) and (2), the elements in bold are subjects. In (1), 'The' is the determiner, 'QuEChERS' is the pre-modifier and 'method' is the head. On the other hand, in (2) 'the' is again the determiner, there are two pre-modifiers, 'SWCNT' and 'quantum', whereas 'yield' is the head. All thirteen groups within this classification had this structure (d-m-h) or the one without determiner and one of the modifiers.

Chart 3 shows that the noun groups with complexity number 2 were also the most frequent in the direct object (Od):

Complexity	Number of groups	Percentage
1	3	13,64%
2	10	45,45%
3	9	40,91%
Total	22	100%

Chart 3: Results for the direct object

Twenty-two noun groups were found among the direct objects and, from these, ten were of complexity number 2, such as the ones in Excerpt 2, which corresponds to the highest frequency.

Excerpt 2

- (3) These findings provide a deeper understanding of the environmental dependence of SWCNT excitonic properties and underscore that the solvent provides a tool with which to modulate **SWCNT electronic and optical properties**.
- (4) Both complexes display linear **trinuclear Cullmetallic cores**.

In (3), the Od has ‘properties’ as head and ‘electronic and optical’ as the pre-modifier, whereas ‘SWCNT’ is a pre-modifier of these adjectives. The head of (4) is ‘cores’, with ‘trinuclear’ and ‘Cullmetallic’ as pre-modifiers. There is no determiner.

For the completives in PrepG, the results found were 50% for complexity number 2 and 50% for complexity number 3, as it can be seen in Chart 4. No groups with the structure d-h or only with the head were found in this position

Complexity	Number of groups	Percentage
1	0	0%
2	2	50%
3	2	50%
Total	4	100%

Chart 4: Results for the completives in PrepG

It is possible to see examples of both kinds of complexities in Excerpt 3:

Excerpt 3

- (5) The QuEChERS method was employed for extraction and the quantification was carried out by **high performance liquid chromatography coupled with diode array detector (HPLC-DAD) and liquid chromatography-tandem mass spectrometry with electro-spray ionization source (LC-ESI-MS/MS)**.
- (6) This phase transition has been monitored by **in situ powder X-ray diffraction and IR spectroscopy**, and modelled by Grand Canonical Monte Carlo simulations revealing that the reversible np to lp transition is linked to the rotation of pyridyl rings acting as flexible ‘pore gates’.

In (5) we have a long completive, formed by the head ‘chromatography’, specified by two pre-modifiers (‘performance’ and ‘liquid’ – the first is pre-modified by ‘high’) and a post-modifier, realized by a non-finite clause (‘coupled with diode array detector (HPLC-DAD)’). This corresponds to complexity number 3. (6), on the other hand, it represents the noun groups with complexity number 2, with two heads, ‘diffraction’ and ‘spectroscopy’; the first head is pre-modified by ‘in situ powder X-ray’, while the second is pre-modified by ‘IR’.

The groups with the highest frequency were the ones which belonged in Complexity Type number 2, which corresponds to the structure determiner-(pre-modifier)-head-(post-modifier), with either the pre- or the post-modifier, and the determiner as an optional. The fact that, in general, the heads needed an element that specified them can possibly be explained by the claim that they introduced a new participant in the clause (CHAFE, 1994) which, in turn, usually requires more syntactic complexity.

The heads in the texts presented were, in general, countable nouns that are not self-determined. That means they usually require determiners, for they are countable, but they also need a term that classifies or specifies them, since, in a scientific text, particularly in the area of Chemistry, the referents can be very broad, and there is need to further specification. Some examples are the sentences below:

- (39) **Two novel trinuclear CuII complexes** have been synthesised from the nucleophilic addition derivatives of the small cyano anion, dicyanonitrosomethanide (dcnm).

(40) Compound 1 revealed very strong antiferromagnetic interactions between central and terminal Cu atoms, while compound 2 displayed **ferromagnetic interactions because** (...).

In (39) and (40), the noun groups in bold were analyzed in this paper. According to the Oxford online dictionary (2005), interaction is ‘a particular way in which matter, fields, and atomic and subatomic particles affect one another’ (‘interaction’, Oxford English Dictionary) and a ‘complex’, in Chemistry is ‘an ion or molecule in which one or more groups are linked to a metal atom by coordinate bonds’ (‘complex’, Oxford English Dictionary). By means of these definitions, it is possible to have an account that the words ‘interaction’ and ‘complex’ already have a very specific meaning in Chemistry. But, for a text such as abstracts from articles, it is necessary to narrow down this definition in order to be more precise. Therefore, the use of pre- and post-modifiers is necessary, especially epithets, which are responsible for specifying the noun (DOWNING; LOCKE, 2006) when required. The same happens with words like ‘reaction’, ‘transition’, ‘structure’ etc.

Besides having the structure number 2 as the most recurrent among the noun groups, it is very significant that for the subject position, the second most frequent structure was (1), while for the direct object, it was (3). This findings may be a consequence of the type of information that is expressed by the clausal elements. The subject, for example, usually conveys information that is considered *light*, or *old* (CHAFE, 1994). For instance, in the subject position, structures like ‘This paper’, ‘the method’ and ‘These findings’ have the function of starting the topic, introducing the reader to the context in which the information is placed. On the other hand, the object has more complete structures, such as ‘the pesticides 2,4-D, diuron and fipronil in sugarcane honey’, ‘the analytical curve, linearity, limits of detection and quantification, precision (repeatability) and accuracy (recovery)’ and ‘a dimeric structure of formulation $K_2(DMSO)_6[1]_2 \cdot C_7H_8$ ’. This is due to the fact that the Od usually expresses new information about the clause topic, therefore the NG realizing this clause element tends to be more complex, since it introduces a new participant in the discourse. The findings of this study seem to confirm the principle of information distribution in a text, acknowledged by Chafe (1994) and Halliday (2004).

As for the Completives in PrepG, they were relevant because they helped form the passive voice, which is a very recurrent construction in scientific texts. The results found for the completives were 50% for the structure number 2 and 50% for the structure number 2, as shown in Chart 4. The important fact here is that, differently from the subject and the direct object, no structure number 1 was found. This can be possibly explained because completives when realizing passive agents chosen to be made explicit, display a complex structure, for they carry significant clausal information.

CONCLUSION

Since the texts analyzed here belong in the field of Chemistry, the information they put across has to be very precise, and a specific meaning has to be built. For that reason, the use of pre- and post-modifiers is very common, which may explain the high frequency of structure number 2, as proposed here. Additionally, the high degree of complexity found in NGs realizing Direct Object refers to the fact that they introduce a new participant in the discourse flow (CHAFE, 1994; HALLIDAY, 2004), which usually requires more specification and more complex linguistic structures; the subjects, on the other hand, bring information that had already been mentioned and, therefore, were realized by less complex NGs.

Further research is presently underway with abstracts belonging in different fields, aiming at gathering more empirical data that can illustrate the theoretical claims of functional-descriptive grammar on nounhood and its relevance considering the relation between the syntactic complexity of NGs and their participation in the clause structure.

Moreover, we believe that this study may have contributed to an area of research that aims at bridging the gap between descriptive theory and empirical language data and at connecting theories about language and contemporary language use.

RESUMO

Este trabalho contém os resultados de uma pesquisa em Sintaxe do Inglês, em relação à estrutura de sintagmas nominais e suas funções sintáticas na oração. Este estudo faz parte de uma pesquisa mais ampla, sobre a manifestação de sintagmas nominais na língua inglesa, especificamente em textos acadêmicos. O objetivo é investigar os sintagmas nominais do inglês sob uma perspectiva teórica, em uma abordagem funcional-descritiva da língua. O texto foi baseado nas obras de Chafe (1994), Downing and Locke (2006) e Halliday (2004). Para alcançar o objetivo traçado, foram selecionados e analisados os sintagmas nominais de cinco resumos de artigos científicos. Eles foram classificados de acordo com sua complexidade, em termos da presença de elementos não nucleares (determinante e modificadores) e de acordo com suas funções sintáticas (sujeito, objeto direto e complemento em sintagmas preposicionais) na oração a que pertencem. Os principais resultados obtidos foram que a primeira estrutura mais comum foi aquela contendo o núcleo, um dos modificadores e o determinante como facultativo, e que, para a segunda estrutura mais comum, os sujeitos foram menos complexos que os objetos. Uma possível hipótese para esses resultados é que tais fenômenos estejam ligados ao gênero textual, e, principalmente, que o sujeito normalmente carrega informações já encontradas no texto, enquanto o objeto direto traz informações novas, o que requer uma complexidade linguística maior.

Palavras-chave: Sintaxe do inglês, complexidade de sintagmas nominais, função sintática, gênero textual.

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