2nd World Conference on Design, Arts and Education DAE-2013

Syntactic-semantic classification of sentences

Blanka Frydrychova Klimova*

University of Hradec Kralove, Faculty of Informatics and Management, Rokitanskeho 62, Hradec Kralove, 500 03, Czech Republic

Abstract

The purpose of the paper is to focus on the analysis of compound and complex sentences in the abstract parts of scientific texts. Small-scale research includes 45 abstracts written in British English. The syntactic-semantic classification is based on Quirk (1985). The types of the compound and complex sentences are recorded by registering the conjunctions and other connectives occurring in them. The criterion for distinguishing the simple sentence from the compound and complex sentence is the number of finite verbs contained in a sentence. If the finite verbs share the same complement, they are regarded as one compound or complex sentence. Findings should be of interest to the writers of such documents and textbook writers.

© 2013 The Authors. Published by Elsevier Ltd. Open access under CC BY-NC-ND license.
Selection and peer-review under responsibility of Academic World Education and Research Center.

Keywords: Abstracts, sentences, classification, English;

1. Introduction

The abstracts, which are analyzed in this paper, were collected from the British professional articles on tourism or conference proceedings on tourism. Some of the titles are as follows:

- *Sustainable tourism - competitive advantage for micro tourism companies in rural areas?*
- *The curse of tourism*
- *Tourism and water use: Supply, demand, and security. An international review.*
- *Tourism employability and the European Social Fund*
- *Tourism and the economy of Tanzania*
- *The social impacts of tourism. A case study of Bath, UK.*
- *Examining expenditure patterns of British tourists to Greece*
- *Tourism and mobile technology*

Altogether the sample comprises 45 abstracts (6,852 words) out of which 18 are empirical studies, 16 concern a review article or a review of literature, 8 abstracts represent case studies and only 3 abstracts can be described as methodological papers. All of them are written only by authors of British origin.

Thus, the mini-corpus can be characterized as follows:

- It is written in formal British language.
- It is synchronic, i.e. it deals with a short time period only.
- It is specialized, i.e. it examines the language of abstracts on tourism topics.
- It is written.

---

* Corresponding author: Blanka Frydrychova Klimova Tel.: +420493332318
  E-mail address: blanka.klimova@uhk.cz

In order to discover which type of sentences and clauses are the most typical of the scientific abstracts, the syntactic-semantic classification is carried out. The evaluation of individual compound and complex sentences is based on Quirk's classification (1985: 722). The types of the compound and complex sentences are recorded by registering the conjunctions and other connectives occurring in them. The criterion for distinguishing the simple sentence from the compound and complex sentence is the number of finite verbs contained in a sentence. If the finite verbs share the same complement, they are regarded as one compound or complex sentence.

2. Analysis

The mini corpus of abstracts comprises 267 sentences out of which 203/76% are compound sentences and 64/24% are simple sentences. Thus, ideally, an abstract might be composed of six sentences (5,9) and an average sentence might have 23,9 words. Compare to Cechova, Krcmova & Minarova (2008). The longest compound and complex sentences appear just in two abstracts and consist of six clauses (both finite and non-finite). (1, 2) Compare also to Duskova study 2 (1999: 241).

(1) The concept of themed tourist attractions are by no means a new phenomenon; indeed, it may be argued that the 'modern' perception of tourism owes its existence to stylised historical representations of the holiday or vacation experience, and that the utilisation of 'novelty-specific' leisure pursuits has spawned an entire industry dedicated to the provision of imaginary adventures to suit modern tastes.

(2) A continuous business process re-engineering is proposed in order to ensure that a wide range of prerequisites such as vision, rational organisation, commitment and training are in place, so they can enable destinations and principals to capitalise on the unprecedented opportunities emerging through ITs.

The sentences are further analyzed for the compound and complex sentences on the basis on coordinating and subordinating conjunctions, which are arranged according to their frequency of occurrence in the text of abstracts (Table 1). The grammatical organic means of textual cohesion are not included.

Table 1. Distribution and a number of the coordinating and subordinating conjunctions in the research sample

	Coordinating conjunctions	No.
1	and	55
2	but	6
	Subordinating conjunctions	No.
4	that (conj.)	49
5	which (ref. to a noun)	21
6	that (rel.)	12
7	if (3 content cl. x 4 condit. cl.)	7
8	who	7
9	as (3 cl. of compar. x 3 cl. of cause and reason)	6
10	whether	5
11	because	4
12	where	4
13	which (ref. to a clause)	2
14	although	2
15	even though	2
16	in order to	2
17	when (condit. cl.)	2
18	while	2
19	even if	1
20	so	1
21	though	1
22	unless	1
23	whilst	1
24	whose	1

Total	196	

The statistics shows that in the text of abstracts the conjunctions introducing the complex sentences (133/67.9%) are more common that the conjunctions introducing the compound sentences (63/32.1%). Also the most frequent conjunction is the subordinating conjunction ***that*** (61/31.1%), out of which 49/25% occurrences indicate a content clause and 12/6.1% occurrences relative clause (3, 4). The high occurrence of *that* – content clauses is undoubtedly connected with the function of the abstracts; i.e. to inform a reader about the findings and results which were achieved. Therefore, this conjunction seems to be intrinsic for the writing of abstracts and of scientific style in general. In addition, the verbs which precede this conjunction might be considered as style markers of scientific writing. Table 2 lists the verbs according to their frequency and with two and more occurrences in the abstracts. Thus, particularly *argue, suggest, conclude, indicate* and *ensure* might be consider formal, intrinsic and characteristic of the style of scientific writing while show and believe are rather neutral in their expression although they are also used in scientific writing (cf. McCarthy & O'Dell 2008: 122-125).

This type of nominal clause is also introduced by other conjunctions, typical of scientific prose style, such as *whether* or *if* (5). Altogether the content clauses then account for 57/29.1% instances.

There was only one occurrence of the content clause without *that* and it is preceded by the verb *think*, which is a stylistically neutral verb and also typical of the style of fiction (6).

(3) The empirical results show that the tourism specialization has no significant effects on economic growth.

(4) This paper presents an ethnographic study of city tourists' practices that draws out a number of implications for designing tourist technology.

(5) A sample was secured from the residents, factor analysis and regression analyses were conducted to ascertain whether there were any underlying dimensions regarding their attitudes of tourism development, and if socioeconomic and demographic characteristics were useful predictors of residents' attitudes.

(6) A qualitative study conducted by the authors in 2001 and 2002 shows vineyard proprietors' attitudes to wine tourism and identifies ways in which they think wine tourism in the UK can be encouraged and organized to the benefit of the wine producers.

Table 2. Verbs followed by *that*

Verb	No. of occurrences
argue	9
suggest	5
conclude	3
indicate	3
believe	2
ensure	2
show	2

The second conjunction with the most occurrences is the coordinating conjunctions **and** (55/28.1%) – (7).

(7) Implications of the findings are discussed and future research directions are included.

The third type of conjunctions with high occurrences contains the conjunctions introducing the relative clauses Table 3. They account for 24% of all finite clauses. The most numerous conjunction is relative pronoun ***which*** with 21/10.7% occurrences in the research sample. It is also a style marker of scientific writing (cf. Duskova 2, 1999: 239). The reason is that the style of scientific writing tends to be impersonal and formal. Moreover, the main emphasis is put on the description and characterization of findings, discoveries and results (8).

Table 3. Distribution of relative pronouns in the research sample

Relative pronoun	Abs. no.
which (ref. to a noun)	21
that	12
who	7
where	4
which (ref.to a clause)	2
whose	1
Total	47

(8) The paper identifies those factors which have the greatest impact on modal choice and evaluates the effectiveness of policies aimed at achieving modal shift.

Table 1 indicates that the remaining subordinated clauses are adverbial clauses and those are predominantly the adverbial clauses of cause and reason (9/4.6%) – (9), concession (5/2.6%) and condition (5/2.6%).

(9) The situation differs at the regional level because tourism concentrates traveller flows in time and space, and often-in dry destinations where water resources are limited.

Besides, 196 coordinating and subordinating clauses with conjunctions, there is a comparatively high number of **non-finite verb clauses** in the research sample. Altogether **177 non-finite verb clauses** (gerund, infinitive and participle clauses) were found, out of which gerund clauses account for 30/17% - (10), infinitive clauses for 69/39% - (11) and participle clauses for 78/44% - (12). The most common prepositions and prepositional phrases in the non-finite gerund sentences are *by* (13), *in* (7) and *for* (4). In the non-finite infinitive clauses there is a prevalent number of clauses with to-infinitive and just 3 with bare infinitive (13). As far as the non-finite participle clauses are concerned, there are more instances with *ing-participle* (46) than with *ed-participle* (32). Generally, these non-finite clauses are also considered markers of scientific prose style. The findings also show that the authors of abstracts, being limited by a required number of words, attempt on the one hand to include as much information as possible and on the other hand they strive for preciseness of their presentation.

(10) The consumption of luxury holidays was seen as a way to express one's sense of individuality by realising unique, customised, once-in-a-lifetime experiences.

(11) The purpose of this paper is twofold; firstly, to determine whether tourism leads to economic growth.

(12) Furthermore, the understanding of tourism's indirect water requirements, including the production of food, building materials and energy, remains inadequately understood, but is likely to be more substantial than direct water use.

(13) However, countries that are both highly dependent on trade and on tourism tend show a negative effect on growth.

3. Conclusion

In conclusion, the findings of this chapter indicate that the compound and complex sentences in the writing of abstracts tend to comprise six clauses at maximum. The semantic relationship between clauses is largely expressed by explicit means in order to avoid misunderstanding and to make the text factual and unambiguous. A high proportion of clauses are accounted for *that*-content clauses since the aim of abstracts is to present findings, discoveries and results. The conjunction *that* usually follows the verbs which are typical style markers, such as *argue, suggest* or *indicate*. In order to be precise, the conjunction is rarely omitted.

Other types of clauses include clauses with coordinating conjunction and relative clauses with a high occurrences of stylistically inherent relative pronoun *which*. The last group of clauses is formed by adverbial clauses of cause and reason, concession and condition and the like, which semantically contributes to the function of the abstracts.

Finally, a high proportion of sentence condensers, i.e. non-finite clauses contribute to the formality of abstracts and they are representative style markers of scientific prose style.

References

Čechova, M., Krcmova, M., & Minarova, E. (2008). *Soucasna stylistika*. Praha: Lidové noviny.
Duskova, L. (1999). Studies in the English language 2. Praha: Karolinum.
McCarthy, M., & O'Dell, F. (2008). *Academic vocabulary in use.* Cambridge: CUP.
Quirk, R., et al. (1985). A comprehensive grammar of the English language. London: Longman.