COHESION AND THEMATIC STRUCTURE: A SFL-BASED ANALYSIS OF ACADEMIC ABSTRACTS

Didiê Ana Ceni DENARDI
(Universidade Tecnológica Federal do Paraná/Universidade Federal de Santa Catarina)

Saionara GREGGIO
(Universidade Federal de Santa Catarina/CAPES)

Adriana Kuerten DELLAGNELLO
(Universidade Federal de Santa Catarina)

Gloria GIL
(Universidade Federal de Santa Catarina)

ABSTRACT: The cohesive development of texts depend, among other factors, on their thematic organization. In this vein, we propose to discuss the thematic structure of academic abstracts in the light of Systemic Functional Linguistics (HALLIDAY, 1985, 1994) in order to verify how this structure contributes, either positively or negatively, to the construction of cohesion. As such, this study was guided by three main purposes, namely: a) to investigate the elements that constitute the Theme and Rheme of the clauses, b) to verify how the thematic structure in each abstract is built up, and c) to check whether the thematic analysis reveals any positive or negative implications concerning the text texture. The results indicate that (a) in the analyzed abstracts there is a predominance of declarative and topical unmarked Themes, (b) the thematic organization found is typical from the zig-zag pattern, thus introducing new information in every new clause and as such contributing to the achievement of the text information development, and (c) the thematic elements, Theme and Rheme, succeed each other between the clauses, hence promoting cohesion and coherence to the abstracts and contributing positively to their texture.

KEYWORDS: Systemic Functional Linguistics; thematic structure; academic abstracts; cohesion.

1. Introduction

Systemic Functional Linguistics (SFL) is an approach which has helped linguists to analyze and explain “how meanings are made in everyday linguistic interactions” (EGGINS, 1994, p. 1). This approach has increasingly been recognized due to it provides “a very useful theoretical and analytical framework for exploring and explaining how texts mean” (ibid, p. 307). The systemic approach focuses mainly on the analysis of authentic products of social interaction, that is, on the analysis of texts, in order to “understand the quality of texts: why a text means what it does, and why it is valued as it is” (ibid, p.1).

In this article, we will analyze the Thematic structure of two research article abstracts, (from now on, abstracts) in the light of Systemic Functional Grammar (HALLIDAY, 1985, 1994). A study of the Thematic structure involves the analysis of “the structural configurations by which the clause is organized as a message”, hence the Thematic organization plays an important role in the text since it “contributes to the cohesive development of a text” (EGGINS, 1994, p. 271). Our purpose in making the analysis of the Thematic structure of abstracts in the light of Systemic Functional approach is to investigate: a) to investigate the elements that constitute the Theme and Rheme of the clauses, b) to verify how the thematic structure in each abstract is built up, and c) to check whether the thematic analysis reveals any positive or negative implications concerning the text texture.
2. Theoretical assumptions

2.1 The Systemic Functional Linguistics

According to Eggins (1994), Systemic Functional Linguistics (SFL) provides a model of language as a functional semantic resource, that is, a model that emphasizes the social functions of language and describes grammar in terms of hierarchically organized structures and in terms of systems of mutually exclusive choices available to the language user under specified conditions.

Moreover, the systems and the sequence of choices create a text in which the choices themselves are “the realization of contextual dimensions which include “the configurations of field, tenor (register) and mode, cultural conventions (genre) and ideological positions” (ibid.). Thus, language is not only “a resource embedded in a social and cultural context”, but also a resource “through which humans are continually constructing, maintaining and defining what constitute appropriate meanings in our culture” (EGGINS, 1994, p. 307).

Eggins (ibid.) also states that in the Systemic approach “language has been interpreted as a three-level semiotic system in which the text (…) is the locus of choices in experiential, interpersonal and textual meaning”. The system that realizes the experiential aspect of meaning is the system of Transitivity. Through this system, the clause functions as the representation of a process. The interpersonal meaning is realized through the Mood system, which consists of the analysis of how the clause is structured. The third level of the semiotic system, the textual meaning, consists of Theme which “describes the structural configurations by which the clause is organized as a message” (ibid., p. 271). Some aspects of the Theme system will be presented next.

2.2 Thematic Structure at clause level (a micro dimension perspective)

In the Theme system, the clause is configured into two functional components: Theme and Rheme. Specifically, one element in the clause is enunciated as the Theme. This then combines with the remainder (Rheme) so that the two parts together constitute a message. Halliday (1985, apud EGGINS, 1994) conceptualizes Theme as a clause-initial, and Rheme as the development of Theme. In other words, while the Theme is the element that functions as the “starting-point for the message: it is what the clause is about” (ibid) and in this sense it typically conveys familiar or given information, the Rheme is the part of the clause in which the message is developed and “typically contains unfamiliar or new information” (EGGINS, 1994, p. 275).

According to Eggins (1994), one important system of the Thematic structure is choice of type of Theme. Concerning this system, three different types of elements can get to be Theme in a clause. They can be: topical (or experiential) elements, interpersonal elements, and textual elements. Topical Theme refers to the element which occurs in first position in a clause and to which a Transitivity function can be assigned. Interpersonal Theme also refers to the fronted position clause element and to which a Mood label can be designated. Textual Theme refers to the elements, which “do not express any interpersonal or experiential meaning, but which do important cohesive work in relating the clause to its context” (p. 281).

Eggins (ibid.) also states that every clause has only one Thematic element which must be a topical Theme. However, it is common for a clause to contain a sequence of Themes, with often several textual and/or interpersonal Themes occurring before the obligatory Theme. This is labeled multiple Themes. Besides topical, interpersonal, textual, and multiple Themes, there is also elliptical Theme which is not physically found at the thematic position of the clause, but which has to be included in a grammatical analysis.
Another important system of Thematic structure refers to Theme markedness which depends on conflation of the Theme constituent with different Mood and Transitivity constituents. This system encompasses unmarked and marked Themes. The former is when the element that is a Theme conflates with the Mood structure constituents, such as: Subject, Finite, Predicator and WH-element. The latter, in turn, refers to the conflation of the Theme with “any other constituent from the Mood system”. The commonest type of marked Theme is when the Theme conflates with an Adjunct: circumstantial (EGGINS, ibid., p. 296). Also according to Eggins (ibid.), the importance of chosen marked Themes rely on the effective signaling the purpose of the clauses, therefore marked Themes add coherence and emphasis to the text. In sum, the choice between marked and unmarked Themes contribute to the ‘Thematic structure of the text’ (ibid.).

Besides the important aspects related to Thematic Structure mentioned above, it is also worth mentioning the way Theme and Rheme are used to organize the information in the text. The thematic development of a message can be perceived through the way thematic elements succeed each other or through the three main Theme patterns: a) The Theme re-iteration pattern is characterized by the repetition of some thematic elements throughout the clauses, hence producing an effective link among them; b) The Theme zig-zag pattern: is when the Rheme in one sentence becomes the Theme in a following one, which promotes a communicative dynamism in the text; c) The Multiple Theme pattern is when “a Theme of a clause introduces a number of different pieces of information each of which is then picked up and made Theme in subsequent clauses” (p. 304).

As Theme/Rheme structure is seen as an essential component in building cohesion and coherence of a text, its implications go beyond a clause level or the micro level, since “the same principles which underlie Thematic patterning” (EGGINS, 1994, p. 305) may be also perceived in all different levels of a text. Eggins (ibid) exemplifies the Thematic structure in a macro level by saying “that a topic sentence can act as a Theme to a paragraph; a paragraph acts as Theme to a stage in the schematic structure; and a schematic structure acts as Theme to the entire text”.

3. Method

3.1 Description of the corpus

The corpus for this study consisted of two abstracts extracted from the book Pesquisas Qualitativas no Ensino e Aprendizagem de Língua Estrangeira: a sala de aula e o professor (GIL et al., 2005) which were selected and analyzed in the light of Systemic Functional Linguistics. The choice for these two abstracts relies on the fact that both follow the same number and moves of the abstract move pattern designed by Santos (1995), which are: a) introduction of the research by giving its purpose; b) description of the study design and c) presentation of the main findings. See the abstracts in the Appendix 1.

3.2 Extralinguistic information on the corpus

As already said, the corpus under analysis belongs to a specific genre type, that is, the research article abstract. This kind of abstract was characterized in terms of its discursal

1 According to Eggins, (1994), Thematic patterning involves the dynamic movement between Theme and Rheme in a clause as the way the successive Themes relate cohesively to each other.
organization and key features by Santos (1995) and follows a five move pattern in which Move 1 sets the topic or field of research and states the shortcomings of previous research; Move 2 introduces the research by making a descriptive statement of what was done or by giving the purpose; Move 3 describes the study design; Move 4 states the main findings and Move 5 advances the significance of the research by drawing conclusions or offering recommendations.

The book *Pesquisas Qualitativas no Ensino e Aprendizagem de Língua Estrangeira: a sala de aula e o professor* (GIL et al., 2005) from which the abstracts were extracted refers to a set of 13 research articles in the fields of Classroom Research and Teacher Development. The book is organized in four parts: 1) the foreign language classroom; 2) the interface between the foreign language classroom and teachers’ and students’ thoughts and beliefs; 3) English Foreign Language teachers’ beliefs, thoughts and perceptions, and 4) theoretical assumptions and their implementation in the English Foreign Language classroom. The Abstracts (1 and 2) analyzed in this study were extracted from “The foreign language classroom” section.

3.3 Corpus processing: techniques for extracting the data

According to Eggins (1994), “Theme analysis is best undertaken after analyzing the clause for its Transitivity and Mood System” (p. 284). Therefore, we have also carried out the analysis of these two strands of meaning, the experiential meaning, realized through the analysis of Transitivity, and the interpersonal meaning realized through Mood analysis. However, as already stated, in this article we will focus only on the realization of the textual meaning.

In what follows, we present the analysis of the two abstracts from Thematic structure at a clause level.

4. Analysis

4.1 Analysis of Abstract 1

Abstract 1 is composed by five clauses, and, in order to show how they are organized in the light of Theme and Rheme perspective, the analysis of each clause will be presented separately.

Clause 1.0

<table>
<thead>
<tr>
<th>The main aim of this paper</th>
<th>is to describe and discuss through a sociocultural perspective how …</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEME (simple/unmarked)</td>
<td>RHEME</td>
</tr>
</tbody>
</table>

Clause 2.0

<table>
<thead>
<tr>
<th>In view of this, an English for Specific Purposes class, …</th>
<th>was video and audio recorded and analyzed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEME (multiple/unmarked)</td>
<td>RHEME</td>
</tr>
</tbody>
</table>

Clause 3.0

<table>
<thead>
<tr>
<th>The qualitative analysis</th>
<th>was based on the scaffolding functions framework …</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEME (simple/unmarked)</td>
<td>RHEME</td>
</tr>
</tbody>
</table>

---

2 Due to space constraints, the analysis of Transitivity and Mood systems will not be presented in this article.

3 See complete Abstract in Appendix 1A.
Clause 4.1

<table>
<thead>
<tr>
<th>THEME (simple/ unmarked)</th>
<th>RHEME</th>
</tr>
</thead>
<tbody>
<tr>
<td>The results from the analyzed class showed some proleptic teaching characteristics through the use of verbal and semiotics devices</td>
<td></td>
</tr>
</tbody>
</table>

Clause 4.2

<table>
<thead>
<tr>
<th>RHEME</th>
</tr>
</thead>
<tbody>
<tr>
<td>thus promoting high level of classroom interaction and good learning conditions.</td>
</tr>
</tbody>
</table>

It was observed in the analysis of this Abstract that all the clauses are declarative and present unmarked thematic structures. Declarative refers to affirmative or negative statements, and in the case of the abstract under analysis only affirmative statements were found. In declarative clauses, unmarked themes are characterized by the choice of the thematic element, what means to say that Themes and Subjects of the clauses conflate. According to Halliday and Matthiessen (2004, apud PAQUILIN, 2005), this is a typical pattern found in declarative clauses, since in this kind of sentences, the Subject is the element that is typically chosen to be thematized.

Regarding the types of Themes, Abstract 1 presents simple and multiple Themes. While Simple topical Themes can be perceived by the predominating use of nominal groups in clauses 1.0, 3.0, and 4.1, multiple Theme is seen in clause 2.0 - “In view of this, an English for Specific Purposes class, …” – Theme here is formed by a conjunctive adjunctive phrase, “In view of this,” and a topical Theme, “an English for Specific Purposes class”. Moreover, the use of this conjunctive adjunctive phrase provides “a useful guide to the rhetorical paths that the writer is following” (BLOOR & BLOOR, 1995, p.100).

Another aspect observed in the Abstract under analysis is the presence of one complex hypotactic clause. This clause consists of one main clause “The results from the analyzed class showed some proleptic teaching characteristics through the use of verbal and semiotic devices” (clause 4.1), and another that is dependent on the previous “thus promoting high level of classroom interaction and good learning conditions” (clause 4.2). The dependence of clause 4.2 presupposes a main clause, which is clause 4.1.

Concerning the thematic line, Abstract 1 does not follow a fix pattern. It presents some features of the zig-zag pattern mainly. As can be seen, the Rheme in clause 1.0 becomes the Theme in clause 2.0, and the Rheme in clause 2.0 becomes the Theme in clause 3.0. However, this pattern changes in clauses 3.0, 4.1, and 4.2. The Theme in clause 3.0 is repeated in clause 4.1, which is a feature of the re-iteration pattern. Besides, clause 4.2 does not have Theme as it is a dependent clause.

4.2 Analysis of Abstract 2

Abstract 2 also consists of five clauses and its Theme/Rheme structure is the following:

---

4 See Appendix 2A for a better visualization of the Thematic development pattern of Abstract 1.
5 See complete Abstract in Appendix 1B
Clause 1.0
This article aims at showing the results of a qualitative study which has investigated …

<table>
<thead>
<tr>
<th>THEME (simple/ unmarked)</th>
<th>RHEME</th>
</tr>
</thead>
</table>

Clause 2.0
More specifically, this study has investigated whether the teachers and …

<table>
<thead>
<tr>
<th>THEME (multiple/ unmarked)</th>
<th>RHEME</th>
</tr>
</thead>
</table>

Clause 3.0
In total, twelve classes were observed, audio-recorded and analyzed.

<table>
<thead>
<tr>
<th>THEME (simple/ marked)</th>
<th>RHEME</th>
</tr>
</thead>
</table>

Clause 4.1
The results of this study suggest that code switching from L2 to L1 …

<table>
<thead>
<tr>
<th>THEME (simple/ unmarked)</th>
<th>RHEME</th>
</tr>
</thead>
</table>

Clause 4.2
that code switching from L2 to L1 … may have an important role in facilitating interaction…

<table>
<thead>
<tr>
<th>THEME (simple/ unmarked)</th>
<th>RHEME</th>
</tr>
</thead>
</table>

In Abstract 2, all the clauses are also declarative affirmative and present unmarked and marked thematic structures. Examples of unmarked Themes can be seen in clauses 1.0, 2.0, 4.1, and 4.2, since Themes conflate with the Subjects of the clauses. In turn, an occurrence of marked Theme is found in clause 3.0. As already mentioned, when the Theme is marked, the linguistic choice emphasizes any other element from Mood System that is not the Subject of the clause. In the Abstract under analysis, the marked Theme occurs when the Theme conflates with Adjunct: circumstantial which is expressed by the Manner Circumstance “In total”. The choice for the Manner Circumstance element “In total” as a point of departure (Theme) can be understood as a way the writer found to emphasize the required effort to conduct the target research.

Moreover, Abstract 2 also presents simple and multiple Themes. Simple topical Themes can be observed by the use of nominal groups in clauses 1.0, 3.0, 4.1, and 4.2. A Multiple Theme can be seen in clause 2.0 in which the Theme is constituted by a Conjunctive Adjunct “More specifically”, and a topical Theme “this study”. Still, in Abstract 2 it was observed the predominance of paratactically related clauses. Although there are complex clauses (1.0, 2.0, 4.1 and 4.2), which are formed by two or more clauses linked by relative pronouns, these clauses can stand alone.

The thematic line in Abstract 2 presents characteristics of the zig-zag pattern. As already shown, in the zig-zag pattern, the element which is introduced in the Rheme in the first clause, becomes the Theme in the second clause. The Rheme in the second clause becomes the Theme in the third clause and so on. This pattern can be seen in Abstract 2 in which the Rheme in clause 1.0 becomes the Theme in clause 2.0, the Rheme in clause 2.0 becomes the Theme in clause 3.0, and so on.

---

6 See Appendix 2B for a better visualization of the Thematic development pattern of Abstract 2.
4.3 Summary of thematic analysis

The following table summarizes the Thematic analysis of Abstracts 1 and 2.

<table>
<thead>
<tr>
<th>Category</th>
<th>Abstract 1</th>
<th>Abstract 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marked</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Unmarked</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Dependent clause as Rheme</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Topical element as Theme</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Simple Themes</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Multiple Themes</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Paratactically related clauses</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Hypotactically related clauses</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Ranking clause</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 1. Theme in the analyzed abstracts

5. Discussion

We have seen in the Thematic analysis of both Abstracts how clauses are related one to another and also the way in which thematic patterns are built up from clause to clause through a text.

As can be clearly perceived in the table presented above, in both abstracts there is a predominance of declarative clauses and topical unmarked Themes. It is also worth mentioning that in both analyzed abstracts, there are some clauses in the passive voice (clauses 2.0 and 3.0 in Abstract 1, and clause 3.0 in Abstract 2), which presupposes formal language. According to Halliday (1995, p.169) one of the reasons to get passive voice is to “get the Medium as subject, and therefore as unmarked Theme”. Also and very important, by thematizing the Medium and not the Agents in the abstracts, writers maximize the science and not the researchers which we might say that in this text genre – abstracts- power is hold by science itself.

As already said, Abstracts 1 and 2 thematic organization is typical of the zig-zag pattern. Only one instance of Theme repetition which is characteristic of the re-iteration theme pattern was found in Abstract 1. In this sense, Abstracts 1 and 2, by means of the thematic zig-zag pattern, achieve information development and also cohesion by the introduction of new information in every new clause. For example, the abstracts start by stating the aim of the article, then they mention the context or methodology used to collect and analyze data, and finally they show the research results. In the case of repetition of Theme in clauses 3.0 and 4.1 in Abstract 1, it can be said that the repetition has the function of maintaining the importance of results acquired by that kind of analysis, hence by the research carried out.

Although, in this article, we have not analyzed cohesive components of grammar, which consists of reference, ellipses and substitution, conjunction and lexical cohesion, it was possible to perceive, through the thematic analysis of the abstracts, that there is likely to be a linking of many cohesive elements in the analyzed abstracts. It was also possible to see through the analysis carried out here how the thematic elements – Theme/Rheme- succeed each other between the clauses, and this way promote cohesion and coherence to the text, that is, to promote the Abstracts cohesion and coherence.
6. Final remarks

In this article we have analyzed the third level of the semiotic system, that is, the textual meaning, made in the clauses of two abstracts. We have shown, as Eggins (1994) points out, that the textual meaning “enables the clause to be packaged in ways which make it effective given its purpose and its context” (p. 273). By analyzing the Thematic structure of two abstracts, it was possible to get insights into issues which are relevant to their development, for instance, how the clauses are organized in the light of Theme and Rheme perspective and how the thematic line in each abstract is built up. The results of this analysis indicate that (a) in the analyzed abstracts there is a predominance of declarative and topical unmarked Themes, (b) the thematic organization found is typical from the zig-zag pattern, thus introducing new information in every new clause and as such contributing to the achievement of the text information development, and (c) the thematic elements, Theme and Rheme, succeed each other between the clauses, hence promoting cohesion and coherence to the abstracts and contributing positively to their texture.

References

GIL, G., RAUBER, A., CARAZZAI, M. & BERGSLEITHNER, J. (Orgs.) Pesquisas qualitativas no ensino e aprendizagem de língua estrangeira: a sala de aula e o professor. DLLE/CCE/UFSC: Florianópolis, SC.

APPENDIX 1

ABSTRACTS 1 AND 2

Note: In the division of the clauses of abstracts 1 and 2 the following signs were used:

a) /// indicates the starting and end point of the whole clause;
b) [[ indicates Post modifier as qualifier and is part of the main clause;
c) // indicates clause complex.

A) ABSTRACT 1

Title of the article: Micro-análise do uso de funções de andaime em explicações gramaticais na aula de Inglês Instrumental
ABSTRACT:/// The main aim of this paper is to describe and discuss through a sociocultural perspective how explanations are carried out in an English as a foreign language classroom./// In view of this, an English for Specific Purposes class, with explanations on the passive voice construction, was video and audio recorded and analyzed./// The qualitative analysis was based on the scaffolding functions framework (WOOD, BRUNER & ROSS, 1976)./// The results from the analyzed class showed some proleptic teaching characteristics through the use of verbal and semiotics devices, thus promoting high level of classroom interaction and good learning conditions.///

KEYWORDS: Scaffolding functions. Grammatical explanations. Classroom interaction.

B) ABSTRACT 2

Title of the article: Uso alternado de inglês e português na sala de aula de inglês como língua estrangeira

ABSTRACT: /// This article aims at showing the results of a qualitative study [[which ha investigated the use of English ad Portuguese (code switching) in interactive exchanges between the teacher and the learners in both a beginner and a pre-intermediate English as A foreign Language (EFL) classroom]]./// More specifically, this study has investigated [[ a) whether the teachers and the learners use codes witching in the EFL classroom or not; b) the types of code switching they use; c) the moments when there is frequent use of code switching; and d) the functions of code switching. In total, twelve classes were observed, audio-recorded and analyzed.]]/// The results of this study suggest/ that code switching from L2 to L1 and from L1 to L2 in teacher-learner interaction may have an important role [[in facilitating interaction among classroom participants [[as well as in facilitating learning in the EFL classroom]] ]].///

KEYWORDS: Code Switching. Functions of code switching. EFL classroom.

APPENDIX 2

THEMATIC ANALYSIS OF THE ABSTRACTS

A) Thematic development pattern of Abstract 1: zig-zag/ reiteration pattern

CLAUSE 1.0: THEME --------- RHEME
CLAUSE 2.0: THEME --------- RHEME
CLAUSE 3.0: THEME --------- RHEME
CLAUSE 4.1: THEME --------- RHEME
CLAUSE 4.2: --------- RHEME

B) Thematic development pattern of Abstract 2: zig-zag pattern

CLAUSE 1.0: THEME --------- RHEME
CLAUSE 2.0: THEME --------- RHEME
CLAUSE 3.0: THEME --------- RHEME
CLAUSE 4.1: THEME --------- RHEME
CLAUSE 4.2: THEME --------- RHEME (COMPLEX CLAUSE)