Review Article

Cross-disciplinary and Cross-linguistic Manifestation of Theme in Academic Writing

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ABSTRACT

There is considerable agreement among linguists that theme acts as a cohesive device in texts. It plays a major role in message organization and in enabling it to be communicated and understood clearly. Although one issue in writing is how writers apply this cohesive device in their writing, the question of how theme manifestation is affected by the writers’ disciplinary or linguistic background has received little attention. Therefore, this paper aims to review the issue of theme in cross-disciplinary and cross-linguistic studies. The reviewed studies supported the earlier claim that theme application is packed differently across different disciplines and linguistics.

Keywords: Theme, academic writing, thematic structure, cross-disciplinary studies, cross-linguistic studies

INTRODUCTION

Scholars investigated the importance of theme as a cohesive device to see how information is packed cohesively in similar genre by writers from different disciplines (Whittaker, 1995; Ghaddesy, 1999; North, 2005; Idding, 2008; Ebrahimi & Khedri, 2011) or linguistics (Ghabanchi, 1990; Williams, 2005; Zhou, 2006; Jalilifar & Khedri, 2011). These scholars suggested that theme application is affected by the writers’ disciplinary or linguistic background which implies that information in similar genre is packed differently in different disciplines and languages.

The paper aims to review empirical studies done in the area of thematic manifestation in similar genre across different disciplines and linguistics. This
paper will briefly describe the background and definition of theme in the second section. Consequently, discussions on in turn, data gathering procedures, method, findings and discussion, conclusion, and further suggested studies will be presented.

DEFINING THEME

Halliday’s notion of theme is descended from Systemic Functional Grammar which is articulated by Halliday in the 1960s. Systemic Functional Grammar is a grammar model which focuses mainly on the choices that are provided by the grammatical system for language speaker. These choices are pretend to be meaningful and link speakers’ intention to concrete forms of language expression (Matthiessen & Halliday, 1997).

Matthiessen and Halliday (1997, pp. 12-13) argue that Systemic Functional Grammar considers the choices to be manifested in the clause through three metafunctions. Therefore, clause is made by a combination of three metafunctions; interpersonal, ideational and textual.

1. Interpersonal metafunction: It deals with speaker and listener interaction and how grammatical choices help enact the social role generally, and speech role particularly through dialogic interactions, such as, establishing, changing, and maintaining interpersonal relations. Mood as one of its major grammatical systems expressed in a clause is the grammaticalization of speech function.

2. Ideational metafunction: It deals with ideation which is the grammatical choice for structuring our experience of the world around and inside us. Transitivity as one of its major grammatical systems is the resource for constructing our experience. It includes a process, the participants in the process, and circumstances attendant on it.

3. Textual metafunction: It deals with text development. This is done through presenting the ideational and interpersonal meanings as shared information between speaker and listener in text unfolding in context. Theme as one of the major textual systems is the resource for providing a local context for clause operation through selecting a local point of departure in the flow of information.

In Mathiessen and Halliday’s (1997, p. 19) mind, the textual metafunction which, as stated by Gosden (1992), is manifested as theme in the clause engenders resources for presenting interpersonal and ideational meanings as information organized into text that can be ongoingly exchanged between producer and receiver. This involves transitions in the development of text (conjunctive relations) and the assignment of different textual statuses. These transitions and statuses enable the exchange of information where the producer guides the receiver in interpreting the unfolding text.

Theme definitions are classified into two parts of pure and applied definitions. In the former, the scholars just provide us with the definition of theme, but in the latter, scholars provide us with definitions of theme as well
Theme in Academic Writing

as the practical side of the definitions, and its application in language teaching contexts.

Different functional definitions of theme and rhyme are found in the work of different scholars. Halliday (1985, p. 30) defines theme as:

"An element which serves as the point of departure of the message and what the speaker has in mind to start with. It is the element in a particular structural configuration taken as whole, organizes the clause as a message. The remainder of the message is called the rhyme. Therefore, a clause consists of a theme combined with a rhyme and the sentence is expressed by order. The order is theme followed by rhyme".

Halliday (1994, p. 39) elaborated further by stating that "theme is what clause is about, and it comes in the first position, but this position is not what defines the theme; it is a means which realizes the function of the theme".

McCarthy (1991, p. 52) mentioned that theme is applied by the addressee to highlight a piece of information in the sentence. For example, it is quite common that "in spoken narratives and anecdotes, the speaker will often front-place key orientational features for their listener". These features are mainly place and time markers such as one day, then, suddenly, once upon a time. Therefore, theme is felt to be important for the message receiver.

Belmonte and McCabe (2000, p. 2) considered the theme from a cognitive-communicative perspective. They claimed that theme functionally combines expressions of speaker’s perception of reality and their concerns to communicate these perceptions, so it has two perspectives: a cognitive perspective which refers to the world of experience and a communicative perspective which refers to its discoursal role.

Fries (1992, p. 1) declared that students (native and non-native English speakers) suffer from the difficulty in ordering the words in their sentences. Teachers as well sometimes struggle with the difficulty of giving explanations about information ordering in the sentences to students. To overcome these hardships, two concepts of theme and information focus are of great help. Theme is the point of departure of the clause as message. Since theme is realized in the first part of the clause in English, it can be easily recognized. Fries also illustrated that theme is an important cohesive element which must receive great attention while writing.

Brown and Yule (1983, p. 125) stated that one of the constraints on the speaker and writer is that they can produce only one word at a time when they are producing their message. They have to choose a beginning point for their utterance in order to organize their message. The initial point is important in the clause and also in the discourse. It influences the hearer’s and reader’s interpretation of everything that follows in the discourse since it constitutes
the initial textual context for everything that follows. What is placed in the initial position is called theme.

Leonard and Huraki (2005, p. 2) argued that information which is situated at the end of one clause is mostly used as a starting point of the next clause. Since theme is the starting point of the clause, it servers the function of relating the clauses in the text logically. The articles reviewed in this study are mostly based on Halliday’s (1985, 1994, 2004) definition of theme.

**METHODOLOGY OF REVIEW**

The articles which were reviewed in this paper were gathered through a search of electronic data bases for the key terms of theme, theme in research article, theme in writing, cross-disciplinary studies on theme, theme and translation, and theme across different languages. Time limitation was not applied in searching the electronic data bases to include all the studies which have been done in this area. The search by the above mentioned key terms yielded 8 articles directly related to the focus subject. The search through the references of these 8 articles yielded 1 more article. The articles which were reviewed for this study are presented in Appendix A.

This review is based on the review guidelines proposed by Creswell (1994), who set the goal of a review paper as summarizing the current state of knowledge concerning the topic under review and highlighting the important issues the earlier studies have left unresolved.

The review of this paper was done by gathering articles and categorizing them as cross-disciplinary and cross-linguistic studies as it is a concern of the researchers to possibly extend the scope of theme investigation. Each article was reviewed for its topic, corpus, model, method and findings. The strengths, weaknesses and limitations of each article were highlighted. The last stage was the discussion of the strengths, weaknesses and limitations, and putting forward some directions for future research.

**FINDINGS FROM THE REVIEW**

The findings and the discussion of earlier studies will be classified into two parts, i) cross-disciplinary, and ii) cross-linguistic studies on the theme.

*Cross-disciplinary studies on theme*

The cross-disciplinary studies on theme presented in this section concern theme in different genres of essay writing, research article, and research article abstract in the broad genre of academic writing.

Thematic organization in the academic article abstracts was investigated by Ghadessy (1999). He ran his study on a corpus of 150 abstracts, written by both native and non-native speakers, from 30 different academic disciplines at Hong Kong Baptist University. He analyzed the data based on Halliday’s (1994) model of thematic organization including simple, multiple, marked, unmarked, textual and interpersonal theme. The result indicated
that theme is manifested differently across different disciplines. In the case of the simple theme, the result reported Geography as having the highest frequency of 84.6% while the lowest was in Finance with 47.4%. Multiple theme was another theme type which was treated differently. In Finance abstracts, this theme manifestation had the highest application with 52.6 and while the lowest application was reported in Plant Pathology with 10%. The other theme which was treated differently by different disciplines was the unmarked theme. Sociology abstracts used this theme type in 100% of their clauses while this theme type was used only up to 70.6% in Film and Cinema abstracts. Regarding the marked theme, Film and Cinema used it in 29.4% of all the theme variations while the marked theme was totally neglected in Sociology abstracts.

While, this study supported the hypothesis that application of theme in different disciplines is different, the findings cannot be overgeneralized as a) the result of this study did not compare or contrast with other studies in the same area as even the writer himself claimed a lack of studies in the area, b) the data were not large enough to generalize the result as there were only 5 abstracts from each discipline even if they were taken from high reputed journals, they can not be deemed as representative of the disciplines, c) thematic structure is inter and intra sentence structured which means that not only thematic organization but also thematic progression need a light to be shed on and d) the unit of analysis was the clause but if it is a dependent, then the thematic structure must be focused on the independent clause inorder to be correct.

Types of information that authors of academic articles in two disciplines, Economics and Linguistics, place in thematic positions was investigated by Whittaker (1995). The unit of analysis for the study was the orthographic sentences or clause complex. She analyzed eight academic articles, four on each discipline and her corpus consisted of 40000 words taken from the reading texts which students of English at the Language Center of Madrid Autonomous University were given as part of their course. The thematic analysis was based on over 1500 examples. The data on ideational themes confirmed Halliday’s claim that this type of writing depends heavily on relational processes. She concluded that academic articles can be expected to have few interpersonal themes (under 10%), and this can be attributed to the impersonal tone of academic articles. The result showed somewhat similarity between two disciplines in case of the textual and interpersonal themes. The mean of the textual theme was 8.8 and 8.5, while the interpersonal theme was 17.7 and 17.4 in Applied Linguistics and Economics research articles, respectively. The findings of her study showed disciplinary differences between the two focused disciplines in the case of the ideational theme and its process types.

The strong points of this study were: a) it analyzed all the thematic types and processes involved in thematic organization
proposed by Halliday (1985), b) it selected orthographic sentences or clause complex as unit of analysis, and c) it gave a thorough description and exemplification of the gained results, however, shortcomings of this study were: a) this study was run on a small corpus; therefore, the result is not generalizable, b) this study, following other studies presented in this paper, focused merely on thematic organization and neglected thematic progression which is important in tracing of thematic development across sentences or clause complexes of the text, c) the result were not statistically meaningful since no comparisons were made with earlier studies, and d) the researcher did not focus on the thematic types of the interpersonal and textual themes.

The research conducted by Erahimi and Khedri (2011) attempted to see how thematic structures are handled by research article writers from different disciplines while contributing their new knowledge in the abstract section of research article. Following Halliday’s (1994) model of thematic organization and the revised model on the patterns of thematic progression pattern proposed by McCabe’s (1999), they analyzed a corpus of 10 academic research article abstracts from two disciplines (5 in Chemical Engineering and 5 in Applied Linguistics) to clarify the possible similarities and variations between these two disciplines in light of thematic selection. They used the t-unit as unit of analysis.

The results indicated disciplinary differences regarding use of the textual and interpersonal themes. In Chemistry, writers used 14% interpersonal and 27% textual themes, while in Applied Linguistics these themes manifested in 5% and 23% of the total themes respectively. The result also showed that the number of the simple topical themes was proportionally greater in Applied Linguistics abstracts than that of Chemistry ones. A significant point was that while the marked theme was found in 8% of the t-units in Applied Linguistics abstracts, this theme was not used at all in the Chemistry abstracts.

In case of thematic progression, linear chain, the chain in which the item in the rheme of the first clause becomes the theme of the subsequent clause, was used more in Chemistry abstracts compared to Applied Linguistics research article abstracts. The findings also reported more use of the constant pattern in the Chemistry abstracts. While the split theme chain, the chain in which the item in the theme of the first clause is also selected as the theme of the following clause, was manifested only for once in the Applied Linguistics abstracts, this pattern was not occurred in the Chemistry abstracts. Finally, the miscellaneous pattern, which is outside McCabe’s (1999) model, was analyzed. The result showed more application of this thematic pattern in Applied Linguistics abstracts when compared to the Chemistry abstracts. The gained result showed overall disciplinary differences between the two analyzed disciplines in terms of thematic organization and progression patterns.

The strong points of this study were a) the gained results were compared and
contrasted with other studies in the similar and different genres which make the result to be statistically meaningful, b) the analyzed corpus were taken from highly reputed journals (ISI), c) the corpus were analyzed for both thematic organization types and thematic progression patterns which shows the structure of the information inter and intra clause, and d) the unit of analysis was the t-unit which could give more clearer results as it includes both the independent and its dependent clause(s) as one unit.

The drawbacks of this study were a) the corpus was not large enough for generalizing the result, b) the result of this study was not supported by examples from the analyzed data, and c) the corpus was not analyzed for subcategories of thematic organization types.

In a research conducted by Idding (2008), he studied the use of theme in two disciplines of English Humanities and Biochemistry. He analyzed six texts which were selected from peer-reviewed academic journals, three from each discipline. He used Halliday’s (1994) model of thematic organization and the result illustrated disciplinary differences in terms of the interpersonal (7% in English Humanities and 1% in Biochemistry) and the unmarked themes (94% in English Humanities and 79% in Biochemistry), and disciplinary similarity in terms of the textual theme (26% in both disciplines).

The strong point of this study was it analyzed disciplines from soft and hard sciences. Shortcomings of this study were: a) the corpus was too small for overgeneralizing the result, b) the study focused only on thematic organization types, c) the result was statistically not meaningful since it was not compared or contrasted with other studies and d) the result was not supported by examples.

To investigate the theme in students’ essays North (2005) analyzed 61 essays written by 20 students about the history of science. Ten students had science background while the other ten had art background knowledge. Out of the 61 essays, 28 were written by art students and 33 were written by science students. The essays were written as a part of course assessment. The data contained 65234 words.

The data analysis declared that art students obtained higher marks for their essays compared to science students. This suggests greater tendency towards including the orienting themes (textual, interpersonal, interpersonal and experiential elements). These themes provide the reader with explicit guidance on the way of constructing a coherent interpretation of the text through the use of theme, and they also applied these themes to discuss rather than to present facts. Art students also thematized other writers in their essays much more than that presented in the essays written by science students who tended to make more use of unqualified assertions (North, 2005). She concluded that in essay writing, thematic choices reflect the different conceptions of knowledge of academic writing, and this could be a factor in grade achievement in course assessment.
The positive points of North’s (2005) study were a) the gained result was generalizable because it was based on the analysis of large corpus, b) all the steps of her study was scientifically backed and rationalized, c) the t-unit (independent clause and its dependent clause or clauses) was used as a unit of analysis, d) the result was explained thoroughly and supported by examples from the analyzed data, and e) the result was statistically meaningful since it was compared and contrasted with other studies. The shortcomings of this study were a) it focused only on thematic organization while thematic progression was neglected, and b) subcategories of thematic organization types were not taken into consideration in this study.

Cross-linguistic studies on theme
The cross-linguistics studies on theme presented in this section concerns theme manifestation in different genres of textbooks, research articles, and advertisement texts across two different languages.

Ghabanchi (1990) performed a contrastive analysis of the target sentences of English and Persian texts. The corpus used in his study consisted of 40 short English and Persian texts written for beginners by native speakers. The total number of the English sentences were 237, and that of Persian sentences were 315. The English texts were drawn from the book Practice and Progress and the Persian texts were selected from Taalimat Dini, and Farsi Reading for second to fifth grades of elementary school. He found three types of theme-rheme structures existing in his data: a) the first type indicates the simultaneous relationship between theme and rheme of one sentence with theme and rheme of the subsequent one; b) the second type is theme omission which exists in Persian texts, and c) the third type indicates the relation of the preceding theme to the subsequent rheme which was rare in both languages. Findings showed that most of the common references to theme in English were pronouns whereas in Persian most of the common references to theme were pronouns and synonyms.

The positive points of this study were: a) the result was built on a big corpus which supports the result generalization, and b) the result is meaningful since it was compared and contrasted with other earlier studies, and c) it focused on both thematic organization and thematic progression. The shortcoming of this study was that the two texts were not linguistic realizations of the same idea in two languages like that in translation.

Williams (2005) performed the analysis of thematic types referring to research and researchers reported in the discussion section of Spanish Biomedical articles and English-Spanish translation. The corpus used in his study contained approximately half a million words and consisted of 192 research articles following the introduction, method, result, and discussion (IMRD) format. The results showed that in the Spanish texts most of the themes referred to the researcher whereas the themes in the translation referred mostly to the research.
The positive points of this study were a) the corpus is large enough to be representative of the analyzed field, and b) the result is generalizable since it was based on a large corpus. The shortcomings of this study were a) the study focused on only the discussion section of the research article, and b) only one theme type was analyzed.

Zhou (2006) applied the theme construction to the Chinese language which shows some grammatical dissimilarity when compared to English. She worked on interpersonal metafunction and attempted to show whether advertisement texts engender similarities in interpersonal metafunction. She selected 15 texts from 2 Chinese journals and 15 from 2 English journals. The Hallididian theme categories (1985) and the interpersonal theme categories were taken into account. The themes were counted and classified accordingly. Results showed that the modal themes were not prevalent across both corpora, and he concluded that the advertisement texts did not engender similarities in interpersonal metafunction across two languages.

The positive point of this study was the sufficient size of the corpus for generalizing the result, and the shortcoming was the focus on only one of the three metafunction of the language proposed by Halliday.

In their study on thematic organization and progression, Jalilifar and Khedri (2011) analyzed thematic structure of English academic texts and their translations in Persian. They ran their study on a corpus of sample academic texts selected from the first three pages of the first chapters of 9 English applied linguistics textbooks and their translated versions. These textbooks were representing applied linguistics textbooks used to teach B.A. and M.A. students in Iranian universities and their parallel translated into Farsi. They used Halliday’s (1994) model of thematic organization and McCabe’s (1999) model of thematic progression. They used the t-unit as unit of analysis. The result showed differences regarding thematic organization types and progression patterns in both textbooks. As for thematic organization, the result showed significant difference in terms of the textual, multiple, and marked themes. In the case of thematic progression patterns the result showed significant differences between the linear, constant and miscellaneous patterns. The study concluded that both authors as well as translators must be conscious of these tools in order to use them effectively and create more cohesive texts.

This study had the following positive points: a) the study was ran on a large enough corpus for result generalization, b) the study analyzed the same idea presented in two different languages; controlling idea as a variable would mean that the differences or the similarities would be attributed more directly to thematic structure differences, c) the unit of analysis was the t-unit, d) the result was meaningful since it was compared and contrasted with earlier ones, e) the result were supported with description, discussion and exemplifications, f) all the steps of this research was rationalized and scientifically backed, and g) both thematic organization and progression as well their sub-categories
were analyzed. The drawback of this study was the focus on only the first chapter of textbooks; therefore, the data is not representative of the entire text.

CONCLUSION
In sum, the reviewed studies which focused on thematic structure application across disciplines, showed several shortcomings and strengths (The main findings of this review are presented in Appendix B). Nonetheless, they supported what was earlier suggested by North (2005) and Lovejoy (1991), that writers from different disciplines write differently since each discipline as a small discourse community has its own specific expectations, beliefs, and practices which is shared among its members (Lovejoy, 1991). Writing in each discipline is affected by the discipline conventions, and shaped by disciplinary background (North, 2005).

Despite some shortcomings, the reviewed studies regarding theme application across different linguistics (The main findings of this review are presented in Appendix B) supported what was suggested and claimed earlier by Ventola (1995) and Matthiessen (2004). Ventola states that there is no question about the usefulness of thematic structures in text construction, but this structure is not expected to function in the same way in various languages (1995, p.102). In the same line of argumentation, Matthiessen (2004) suggests that research has shown that thematic structure (thematic organization and progression) is not quite the same among various languages.

SUGGESTIONS FOR FURTHER RESEARCH
This paper that aims at reviewing related studies concerning thematic structure application across different disciplines and linguistics illuminates a number of areas for further research. As the reviewed studies were mostly on research articles and textbooks, a more insightful picture of cross-disciplinary and cross-linguistic manifestations of theme could be obtained through the analysis of other genres such as newspapers, e-mails, academic lectures, and literature texts. The reviewed research articles were mostly ran on small corpora where results are not statistically significant enough for generalization, so further studies on theme use bigger corpora are needed. Many of the reviewed research articles targeted only thematic organization or thematic progression, so further studies which analyze both structures can help to show the impact of theme as a device in text cohesion.

REFERENCES


## APPENDIX A

**Summary of Reviewed Studies**

<table>
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<tr>
<th>Author</th>
<th>Study</th>
<th>Corpus</th>
<th>Method of analysis</th>
<th>Findings</th>
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<tr>
<td>Ghaddesy (1999)</td>
<td>Cross-disciplinary</td>
<td>150 research article abstracts from 30 disciplines</td>
<td>Halliday (1994)</td>
<td>Theme manifest differently across different disciplines</td>
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<tr>
<td>Whittaker (1995)</td>
<td>Cross-disciplinary</td>
<td>8 research articles, 4 from economics and 4 from applied linguistics</td>
<td>Halliday (1994)</td>
<td>Disciplinary differences between the two disciplines in terms of ideational theme and its process</td>
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<tr>
<td>Ebrahimi &amp; Khedri (2011)</td>
<td>Cross-disciplinary</td>
<td>10m research article abstracts, 5 from Chemistry and 5 from Applied Linguistics</td>
<td>Halliday (1994) and McCabe (1999)</td>
<td>Disciplinary difference between two disciplines in case of textual, interpersonal, linear and constant themes</td>
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<td>Idding (2008)</td>
<td>Cross-disciplinary</td>
<td>6 texts, 3 from English Humanities and 3 from Biochemistry</td>
<td>Halliday (1994)</td>
<td>Disciplinary difference in terms of interpersonal and unmarked themes</td>
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<td>North (2005)</td>
<td>Cross-disciplinary</td>
<td>61 essays, 33 were written by 10 students with art background and 28 were written by 10 students with science background</td>
<td>Mauranen (1993)</td>
<td>Thematic choices in students’ essays is shaped by students background</td>
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<td>Ghabanchi (1990)</td>
<td>Cross-linguistic</td>
<td>40 short English and Persian texts written for the beginners by the native speakers</td>
<td>Halliday (1985)</td>
<td>Difference between the way theme is manifested in the two languages of English and Persian</td>
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<td>Williams (2005)</td>
<td>Cross-linguistic</td>
<td>192 Spanish Biomedical and English-Spanish research articles with IMRD format</td>
<td>Halliday (1985)</td>
<td>Spanish texts had more integral references and more general researchers nouns in their themes whereas the translation had more singular nouns associated with more propositional adjunct in Spanish texts but with more subject themes in the translation</td>
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<tr>
<td>Zhou (2006)</td>
<td>Cross-linguistic</td>
<td>15 texts from 2 Chinese journals and 15 texts from 2 English journals</td>
<td>Halliday (1985)</td>
<td>Modal theme were not prevalent across both corpora, so the advertisement texts did not engender similarities in interpersonal metafunction across two languages</td>
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## APPENDIX B

**Main Findings of the Reviewed Studies**

<table>
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<tr>
<th></th>
<th>Study both thematic organization and progression</th>
<th>Unit of analysis</th>
<th>Analytical Framework</th>
<th>Corpus</th>
<th>Discussion and findings exemplification</th>
<th>Comparing and contrasting the findings with earlier ones</th>
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