

An analysis of thematic roles in news articles and short stories

Phân tích các vai nghĩa trong các bản tin và truyện ngắn

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Abstract

This research delves into the intriguing topic of thematic roles, one of the basic notions in the syntax. The study also investigates the connections between thematic roles and two writing genres: journalistic and literary writing. Additionally, it aims to offer learners a deeper understanding of how the characteristics and word usage of different texts can vary depending on thematic roles. To accomplish these objectives, the research will identify and categorize thematic roles based on the analysis materials, compare and analyze the frequency of thematic roles in the two writing styles.

Keywords: Thematic roles; news articles; short stories.

Tóm tắt

Nghiên cứu này đi sâu vào một chủ đề thú vị là vai nghĩa, một trong những khái niệm cơ bản thuộc cú pháp học. Nghiên cứu cũng khám phá mối quan hệ giữa vai nghĩa và hai thể loại văn bản: báo chí và văn học, đồng thời giúp người học hiểu sâu sắc hơn về các thuộc tính văn bản và việc sử dụng từ ngữ trong các văn bản khác nhau có thể biến đổi tùy thuộc vào vai nghĩa. Để đạt được mục tiêu này, nghiên cứu sẽ tìm và xác định các loại vai nghĩa từ ngữ liệu khảo sát, so sánh cũng như phân tích tần suất các vai nghĩa trong hai phong cách viết.

Từ khóa: Vai nghĩa; bản tin; truyện ngắn.

1. Introduction

During our working in English Translation and Interpretation major at Duy Tan University, one subject which we find to be most perplexing yet fascinating would be Syntax in English. Syntax plays a vital role and gives depth to

English linguistics. There are many complex grammar theories which explains why individual words are chosen and arranged in sentences. In the course content, many students have difficulty understanding the notion of thematic roles and analyzing the meanings in texts. To our realization, thematic roles can teach

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us more about the reason certain texts are written differently and how the word choice affects the style of writing. With a passion for English journalism texts and literature, we ourselves want to apply the Theory of Thematic Roles in analyzing these writing genres to gain a deeper understanding of thematic roles, and at the same time draw valuable experiences to support students in their process of studying Syntax.

The study aims to identify and compare the frequency of thematic roles in different text genres between news articles and short stories. The study will conduct a thorough analysis and give explanations for the distinctions between the two using established theories of thematic roles. From the concluded result, the study will provide a better understanding of the concept of thematic roles to analyze the meanings in text as well as improve text analysis for English-major students in their process of studying Syntax. With the specific aims aforesaid, the study is carried out to answer the following research questions:

1. *What is the frequency of thematic roles in literary and journalism texts?*
2. *How can types of thematic roles be represented in the literary and journalism texts?*
3. *What are the differences and similarities of thematic role frequency in literary and journalism texts?*

In the next sections, the authors will provide a summary of relevant research works, present research methodology and theoretical background, discuss the findings and propose some implications.

2. Literature review

Several researchers have looked at works on thematic roles in the past. For instance, Dik's work [1] explored the concept of thematic roles within the framework of functional linguistics. He emphasized the importance of thematic roles

in understanding the semantic relationships between participants and actions in language. The book provided insights into how thematic roles such as agents, patients, and beneficiaries contribute to the overall meaning and structure of sentences. Samardžić [7] looked into the semantic role in natural language processing and in Linguistic Theory. His research has defined relationships between sentence components including thematic roles that cannot be explained only by syntax rules. By investigating the semantic aspects of language processing, Samardžić's work contributed to understanding how thematic roles play a role in the interpretation and analysis of natural language. Johansson [3] is another who investigated dependency-based semantic analysis of natural-language text. His research describes how to build statistical models for categorizing thematic roles in English texts and how surface syntax relates to thematic roles. Further research on semi-supervised semantic role labeling via structural alignment is done by Furstenu and Lapata [4]. They discovered some project annotations from tagged sentences onto related unlabeled sentences in their research, making valuable insights into how thematic roles are assigned and represented in the unlabeled data. Additionally, Marlina [6] analyzed the thematic roles in narrative texts of senior high school textbooks. Her research offers some methodological and practical suggestions and explores thematic role from a semantic point of view.

However, there are no major studies of thematic roles particularly on comparisons among different genres of text. Such researches may further explore the relations between the thematic roles and different forms of writing as well as provide competent writers a better insight on how the properties and word-use of distinctive texts could affect the frequency of thematic roles.

3. Methodology

The research combines data collection methods and text analysis based on English syntactic knowledge. Firstly, the authors conducted the text collection of two genres. Regarding literary texts, two short stories with a focus on dialogue are chosen to capture the nuances of writing that differ from other forms of texts. In terms of journalistic texts, five news articles are selected, covering a range of topics, contexts, and news sources, to provide a clear and distinctive contrast with each other.

The text analysis involves the following steps:

Reading through all the collected texts and identifying the thematic roles in each text to determine their representation.

Determining the frequency of the thematic roles within each text.

Conducting a comparison between the two different text genres to analyze any variations in the frequency of thematic roles.

By following this methodology, the research aims to gain insights into the thematic roles in English texts and explore how they differ between literary and journalistic writing genres.

4. Theoretical background

In this study, we have chosen the thematic roles proposed by Jacobs [2] as the basis for the theoretical background and text analysis. This is due to the fact that Jacobs's theories of syntax and thematic roles are explained thoroughly and gave plenty of examples to guide readers efficiently.

4.1. Thematic roles

Thematic roles have a long-standing presence in theories of linguistics and cognitive science. By way of illustration, the verb *eat* encodes a relation between someone who eats and

something that gets eaten: these participants have been given the role labels agent and theme, respectively. Thematic roles are separated by their variations of semantic and purpose in a sentence. In accordance to Jacob [2], there are ten types of thematic roles as follows.

(1) Agent

The agent is a person or entity that performs an action, usually deliberately. For example: *Maria ran*.

(2) Theme

The broad definition of the role theme covers three somewhat different classes of theme. The first corresponds to a narrow definition in which the theme is understood as the inert entity that is either in a certain state or in the process of changing its position, as in: *The news would have shocked me*.

The second is the role assigned to clauses. Clauses are inert entities because they express propositions, which do not act or experience any change, as in the following example: *Patrick believed that Emily had the greatest talent*.

In the third case, the term *patient* is sometimes used instead of the broader term theme. Patients undergo the action or process specified by their predicate and are affected by it, as in the example below: *The Bengal tiger died*.

(3) Goal

The term goal refers to the place that acts as the destination, as below: *Put the cat on the porch*.

(4) Source

The term source refers to the place from which someone or something comes, as in the following illustration: *He flew from Chicago to LA*.

(5) Instrument

The instrument is the object utilized to carry out an action or the method through which an

action is executed. For example: He cuts his hair with *scissors*.

(6) *Experiencer*

The experiencer refers to the individual who undergoes a mental state or process, such as engaging in thoughts, acquiring knowledge, holding beliefs, comprehending, perceiving visually or auditorily, feeling fear, expressing hope, experiencing surprise, and so on, as in: Montaigne's words inspired the young poet.

(7) *Recipient*

The recipient is the one who receives something, as in the example below: I gave it to the girl.

(8) *Benefactive*

The benefactive is the role of the entity on whose behalf an action is carried out, as follows: The chef baked Jessica a cherry pie.

(9) *Location*

The location refers to the place where an action occurs. It can be followed by certain prepositions such as on, in, at, etc., as in: It rains in Spain.

(10) *Time*

The time is the period when/during which an action occurs. It is easily defined by words of date or time. For example: Last year I met him.

4.2. Journalistic and literary writing

4.2.1. Journalistic writing

Journalistic writing are texts published in written media (such as newspapers, magazines or informative web pages) whose main function is to inform the reader about a topic of general

interest. Journalistic writing has several key characteristics that distinguish it from other forms of writing. Here are some of the most important characteristics: objectivity, accuracy, clarity, audience-oriented, and ethical [5].

In summary, journalism has an emphasis on using factual evidence and logical reasoning. The primary function of journalism is to inform the public by reporting on local, national and global news and events. Journalists strive to write articles that have wide appeal and can be easily understood.

4.2.2. Literary writing

Literature writing is a form of creative writing that seeks to express human experiences, emotions, and ideas through the use of language. The characteristics of literature writing may vary depending on the genre, style, and author, but some general characteristics include the following: imagery, characterization, plot, theme, style, and voice [5].

Overall, literature writing is characterized by its focus on language, storytelling, and the exploration of the human experience. It seeks to engage the reader's imagination and emotions, and to offer insights and perspectives that can enrich our understanding of ourselves and the world we live in.

5. Findings and discussions

In the whole texts collected, 1297 items of thematic roles have been found. Among these, there are 632 items of thematic roles from the short stories, and 665 items from the news articles.

5.1. The frequency of thematic roles

Table 1. The frequency of thematic roles

Types of Thematic roles		Literary Texts		Journalistic Texts	
		Items	%	Items	%
1	Agent	131	16.71	113	16.99
2	Theme	280	44.74	305	45.86
3	Goal	15	2.81	31	4.66

4	Source	10	1.98	25	3.76
5	Instrument	3	0.91	19	2.86
6	Experiencer	48	8.16	22	3.31
7	Recipient	3	0.91	3	0.45
8	Benefactive	27	4.71	16	2.41
9	Location	49	8.19	59	8.87
10	Time	66	10.88	72	10.83
Total		632	100	665	100

From Table 1, we can clearly see the frequency of each type of thematic roles played in the two genres of writing. Overall, the theme is the most used type of thematic roles in the writing. The second most frequent item writers used to express their idea is agent, and the next rank belongs to the time and location. Meanwhile, the recipient rarely appears. As regards to some unique traits between the two genres, there are some fluctuations in the goal, source, instrument, benefactive and especially, the experiencer.

5.1.1. Agent

The agent occupies a considerable proportion with 16.71% and 16.99% of the total thematic roles in the texts, standing as the second most used. For example:

- *She (agent) arranged (Predicate) her board and began (Predicate) a pen-and-ink drawing to illustrate a magazine story [8].*

- *I (agent) stopped (Predicate) walking and took (Predicate) you by the shoulders [13].*

- *President Donald Trump (agent) rescinded (Predicate) the program in 2017, calling it unlawful [14].*

- *The Chinese Foreign Affairs Ministry (agent) declined (Predicate) to comment Thursday on the aircraft carrier [9].*

Most of agents deployed in the data are placed as the subject of the sentence. The primary predicates used after agent such as “arranged”, “used”, “brought”, “rescinded”, etc.

are transitive verbs. There are only a few intransitive verbs such as “persist”.

5.1.2. Theme

The highest percentage of thematic roles is grouped into theme, playing an indispensable part of both literary and journalistic writing styles and covering nearly half of the sum with 44.74% and 45.86% respectively. This number also aligns with the frequency in the narrative text analysis by Marlina [6], where the theme also has the highest number of appearance. Several examples are as follows:

- *Sue found (Predicate) Behrman (theme) smelling strongly of juniper berries in his dimly lighted den below [8].*

- *Costco can test for the DNA's presence (theme) to ensure that its American-grown cotton hasn't been replaced with cheaper materials [12].*

The theme is often the most confusing element to identify since it is abundant and can be in multiple positions in a sentence. The simplest is the theme which undergoes an action. The predicates such as “found” or “test” in the above examples are actions caused by the agent in the subject position of the sentence, which affects the object or theme.

The next type of theme is the inert entity which can be confused with the agent since it is the subject of the sentence, as in the following examples:

- *To be fair, your marriage (theme) was (Predicate) falling apart [13].*

- *Fungal infections (theme)* from the yeast strain known as *Candida auris tripled (Predicate)* nationally from 476 in 2019 to 1,471 in 2021, according to CDC data [10].

- *The snow (theme)*, which provides a nourishing and protective layer for the glaciers, *starts (Predicate)* in the autumn and continues until spring [11].

- *The flurry of visits (theme) comes (Predicate)* amid dramatically worsening *China-U.S. relations (theme)* [9].

To identify it, we have to take a look into the property of the predicate. Certain predicates such as “starts” or “comes” are actions which affects the entity performing it, so it cannot be an agent.

5.1.3. Goal

The goal appears rather infrequently in the literary and journalistic texts, with only 2.81% and 4.66% respectively. For example:

- Sue pulled (Predicate) the shade down to the window-sill (goal), and motioned (Predicate) Behrman into the other room (goal) [8].

To make a pair of jeans, for example, various companies must farm and clean cotton, *spin (Predicate)* it into *thread (goal)*, dye it, *weave (Predicate)* it into *fabric (goal)*, *cut (Predicate)* the fabric into *patterns (goal)* and stitch the jeans together [12].

- [The fungi] get (Predicate) into a hospital (goal) [10].

- “Being here, I think *sends* a signal to *the Chinese Communist Party (goal)* that the United States supports Taiwan and that we’re going to harden Taiwan, and we want them to think twice about invading Taiwan” [9].

In the data, the goals are often placed after prepositions of movement such as “into” or “to”.

5.1.4. Source

Similar to the goal, the source covers a relatively small part of the analysis, with just

1.98% in literary texts and 3.76% in journalistic texts. For example:

- Still dark green near its stem, but with its serrated edges tinted with the yellow of dissolution and decay, it *hung (Predicate)* bravely from a *branch some twenty feet above the ground (source)* [8].

- *I come (Predicate)* from *somewhere (source)* [13].

- Amid growing concern about opacity and abuses in global supply chains, companies and government officials are increasingly *turning (Predicate)* to technologies like DNA tracking, artificial intelligence and blockchains to try to trace raw materials from *the source (source)* to the store [12].

- *Lai said (Predicate)* Taiwan, which regularly buys defensive weapons from *the U.S. (source)*, would do its utmost to protect itself, as well [9].

In the data, the sources are often placed after preposition “from”.

5.1.5. Instrument

The instrument’s contribution to the total thematic roles is minimal, covering 0.91% in literary texts and a slightly higher amount of 2.86% in journalistic texts, such as:

- In November a cold, unseen stranger, whom the doctors called Pneumonia, *stalked (Predicate)* about the colony, *touching (Predicate)* one here and there with *his icy fingers (instrument)* [8].

- We *clean (Predicate)* everything with *bleach and UV light* [10].

The instrument is often placed after the object of the preposition *with*.

5.1.6. Experiencer

The experiencer only takes a humble rate in the total thematic roles found. While literary texts contain 8.16% of the total percentage,

journalistic texts are less than half of the aforementioned amount with only 3.31%. For example:

- As Sue was sketching a pair of elegant horseshow riding trousers and a monocle on the figure of the hero, an Idaho cowboy, *she (experiencer) heard (Predicate) a low sound, several times repeated* [8].

- “Right now, *we (experiencer) see (Predicate) rapid changes happening in the mountains, with indications that the snowline rise is accelerating along with ice loss*” [11].

The experiencer, usually in the position of the subject of the sentence, is multifaceted as it contains many types. From the examples above, it is the experiencer of senses or perception, which includes hearing with the use of the verb “heard” and sight with the verb “see”.

In the next examples, the experiencer role is the subject of mental processes, followed by the predicates “remember”, “believe” and “face”.

- *Your kids (experiencer) will remember (Predicate) you as perfect in every way* [13].

- *Scientists (experiencer) believe (Predicate) the fungus is not a threat to healthy people whose immune systems can fight it off* [10].

- *Undocumented youth (experiencer) often face (Predicate) roadblocks when it comes to paying for college due to their ineligibility for federal financial aid, such as Pell Grants or student loans* [14].

The last one is the experiencer of emotion, preceded by the predicate “angered” and put in the position of the sentence’s object.

- The sighting and downing of a spy balloon over the U.S. in February *angered (Predicate) many Americans (experiencer) and soured ties even further* [9].

5.1.7. Recipient

Of the thematic roles counted, the recipient occupies the smallest number of 0.91% in literary texts and 0.45% in journalistic texts, as in:

- “You may *bring (Predicate) me (recipient) a little broth now, and some milk with a little port in it, and-no; bring (Predicate) me (recipient) a hand-mirror first, and then pack some pillows about me*” [8].

- This policy, known as DACA, protects from deportation and *gives (Predicate) temporary work permits to undocumented immigrants (recipient) who were brought to the U.S. before the age of 16* [14].

In these examples, the recipient can be found after the predicate such as “bring” and “give” and followed by a theme including items such as “a little broth” or “temporary work permit”.

5.1.8. Benefactive

This type occupies a small proportion to the whole thematic roles in the text. There is also a small difference as 4.71% is of literature and 2.41% is of journalism. Some illustrations are as below:

- Young artists must *pave (Predicate) their way to Art by drawing pictures for magazine stories (benefactive) that young authors write to pave their way to Literature* [8].

- *I made (Predicate) this whole universe for you (benefactive)* [13].

- Their visit “*fully demonstrates (Predicate) the firm support of the U.S. Congress for Taiwan (benefactive) regardless of party affiliation,*” the Taiwanese Foreign Affairs Ministry said in a statement Thursday [9].

- The above examples show the benefactive playing as the object of the preposition “for” in the sentences. Some other examples are as follows:

- Having a full picture of their supply chains can *offer (Predicate) companies (Benefactive)* other benefits, like helping them recall faulty products or reduce costs [12].

- George Washington University in Washington, D.C., for instance, *offers (Predicate) qualified applicants (benefactive)* – regardless of their immigration or citizenship status – merit scholarships ranging from \$5,000 to \$30,000 per academic year [14].

For these examples, the verb predicate is “offer”, indicating that the following noun or noun phrase is benefitted from the subject of the sentence.

5.1.9. Location

The rate of the location occupies a sizable number in the collected data, as 8.19% in literary text and 8.87% in journalistic text. Some illustrations are as below:

- An old, old ivy vine, *gnarled and decayed (Predicate) at the roots (location)*, climbed half way up the brick wall [8].

- “In *this universe (location)*, there *is (Predicate)* just you and me” [13].

- *At a cotton gin in the San Joaquin Valley, in California (location)*, a boxy machine *helps (Predicate)* to spray a fine mist containing billions of molecules of DNA onto freshly cleaned Pima cotton [12].

- A deadly and highly drug resistant fungus is spreading at “an alarming rate” in *long-term care hospitals and other health facilities (location)* caring for very sick people, the Centers for Disease Control and Prevention announced Monday [10].

Undocumented students at *GWU (location)* may also be eligible for need-based aid [14].

A bipartisan congressional delegation *arrived (Predicate)* in *Taiwan (location)* on Thursday, a

day after House Speaker Kevin McCarthy defied China by meeting with the island’s president [9].

The above examples reveal that the location is frequently used after prepositions such as “at” and “in”. Location can also be placed in multiple positions in a sentence, whether it is placed at the beginning of the sentence to set the placement of the action taken, after the object to add additional information to the theme, or verb of movement such as “arrived”.

5.1.10. Time

The rest one occurring a considerable amount in the collected articles is time, which takes up 10.88% in literary texts and 10.83% in journalistic texts. This element can be found in the following illustrations:

- “You’ve *been (Predicate)* in a human for *the last 48 years (time)*, so you haven’t stretched out yet and felt the rest of your immense consciousness” [13].

- Since *2000 (time)*, the value of intermediate goods used to make products that are traded internationally has *tripled (Predicate)*, driven partly by China’s booming factories [12].

- The Centers for Disease Control and Prevention *announced (Predicate) on Monday (time)* [10].

In the data, the time elements are after prepositions such as “for”, “since”, and “on”.

5.2. A comparison between the two writing genres

Through the analysis into thematic roles in literature and journalism, we can make a comparison and contrast of thematic role frequencies to represent the properties of the two different genres.

Regarding the common features, both short stories and news articles greatly deploy the use of theme. It can be seen from the data that theme is an element which is frequently indispensable

while creating verb phrases, and other types of thematic roles share a close relationship to the theme and often appear along with it. Another similarity between these genres can be found when comparing the agent, with the second highest percentage in both genres. It can be explained that agents in active voice are used in majority of cases to describe an action caused to the theme. These two almost go hand in hand with each other and the two genres of writing contain them. Moreover, location and time are paramount in the two kinds of texts as they create a mark as to where and when the information is given to the reader.

With reference to distinctive features, a large contrast between literary and journalistic writing can be defined by the writer's frequency of use of the experiencer, much more in short stories than in news reports. Experiencer is usually the subject of predicates or verbs of mental or emotional processes and utilized commonly in stories as well as the dialogue writing. This correlates to the properties of genres mentioned above as literature has to effectively give the reader a vivid imagery and emotion-driven characters in their story. Moreover, the experiencer in journalistic writing is more restrictive otherwise, implying that it is not commonly used regularly in accuracy-focused and objective standards of news reports. Other minor separations are the fluctuations of the goal, source, instrument and benefactive.

To sum up, the verbs, or predicates, play a significant role in creating sentences and thematic roles may differ in literary and journalistic writing. The two models of short stories and news articles are all constituted by ten types of thematic roles, among which the theme and the agent are the two most important components. The differences between the two genres depend on the verb used and context of which the writers want to portray in their writing.

5.3. Implications

Based on our personal experience with thematic role analysis, we would like to propose some recommendations to those who are working on the same analysis. The majority of students simply read a text or article word for word without considering the context of the phrases. Actually, in order to comprehend a sentence's meaning, we must first understand all of its specific details, one of which is the role that it plays in an event. Keep in mind that the constituents in a sentence cannot be determined just by the rules of syntax.

Because thematic roles and verbs are closely related, it is possible to examine thematic roles by taking into account the function of noun phrases and clauses within the context of the sentence. By looking at the verb, we may determine if the subject is acting as an agent or an experiencer. Semantic roles such as agent, location, theme, source, goal, benefactive, experiencer, and instrument can all be connected to verbs. These roles are assigned to the subject and any grammatical functions around the verb.

The task of analyzing thematic roles is divided into three main subtasks: (1) Identification of thematic role of each noun phrase, (2) Classification the thematic role that mostly employed, and (3) Interpretation the frequency of thematic roles in the form of graph and table.

The first part (subtask) can be accomplished by identifying all thematic roles used in each noun phrase of the sentence. In the second part (subtask), various roles, including agent, experiencer, source, and goal, are distinguished using specific semantic principles. Due to the variety of verbs and prepositions employed, this section has difficulty with the number of arguments (noun phrase) and their positions. In order to identify the role that is most frequently used, the third part (subtask) displays the

frequency of thematic roles in the data as a table and graph.

The exploited methodology utilized to complete those three main subtasks is represented by the following steps:

- Divide the texts into different categories and then arrange them, then organize and get the data ready for analysis.

- To understand each text completely, read it cover to cover.

- Start a coding process to initiate a thorough analysis. In this stage, the texts' sentences are divided into groups and given labels based on their thematic roles.

- Make use of the coding technique to create a description. In this step, the analysts pursue the goal of identifying thematic roles in each sentence and tie them to the kinds of verbs and prepositions used.

- Outline the ideas and description that will be included in the text. The conclusions of the analysis are explained by the analyst in a narrative section.

- In the last stage, the analyzer compares the information from the theories with the thematic function that was employed in the sentence to make it clearer.

6. Conclusions

A crucial role is played by syntax, which also adds richness to English linguistics. It has numerous intricate grammar theories that clarify the rationale behind word selection and sentence structure. However, many students find it challenging to comprehend the idea of thematic roles and analyze the meanings in texts when it comes to the course material, partly because the course material does not properly explain and exploit its usage in writing and because the lectures are brief. In fact, thematic roles can teach us more about the reasons why some texts

are produced in a particular way and how word choice impacts writing style. For these reasons, the research was carried out in order to determine and evaluate the prevalence of thematic roles across various text genres. Using a well-established theory of thematic roles, the study undertakes a complete analysis and draws contrasts between the literary and journalistic text genres. From the findings, it is concluded that verbs, or predicates, are important in the construction of sentences. Thematic roles in literary and journalistic writing may also differ because of their difference in properties. Ten different forms of thematic roles, of which the theme and the agent are the two most significant elements, making up the two models of short stories and news pieces. The differences may be explained by some differences between the two text genres.

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