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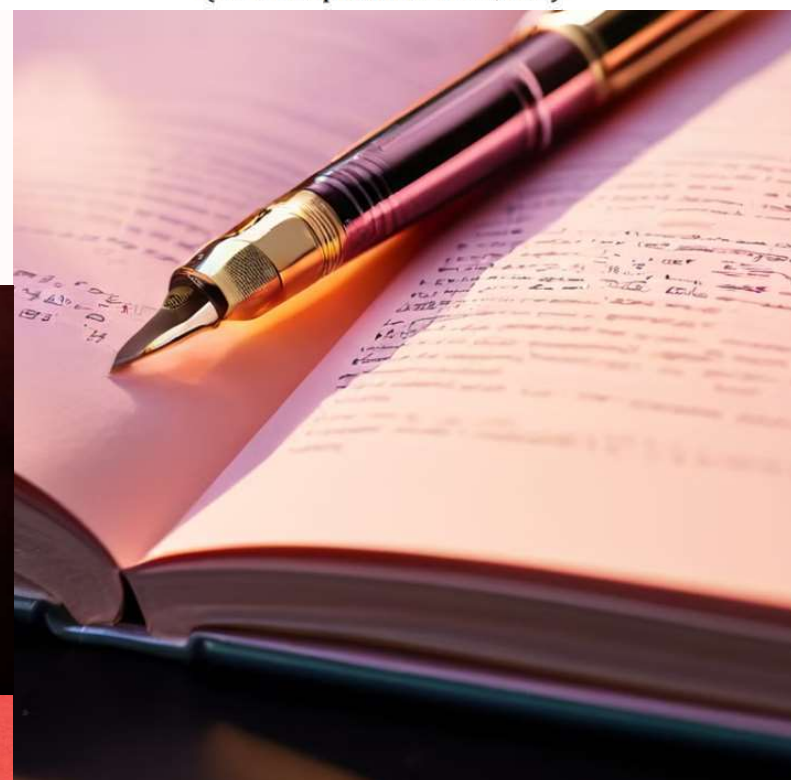
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Quantitative Research of Semantic Roles of English Subjects

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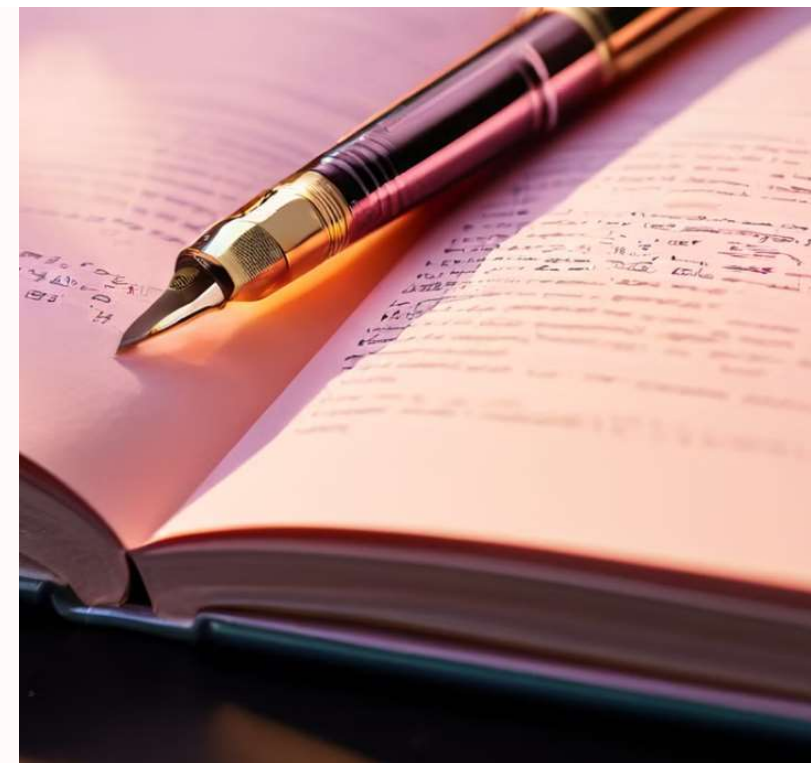
This paper investigates the semantic roles of subjects in written English, focusing on their frequency of occurrence and the diversity of these roles. The study utilizes comparative analysis to identify differences in subject usage across different registers of written English. The research aims to shed light on the characteristics of various linguistic media through the lens of semantic subject roles.



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Semantic Roles of Subjects

Semantic roles are the thematic functions that noun phrases play in a sentence, defining their relationship to the verb. In this study, we focus on the semantic roles of subjects, which can be categorized as Agent, Causer, Experiencer, Patient, Instrument, Described, Located, Anaphoric/Cataphoric It, Temporal, Locative, and Event. Each role represents a specific way the subject participates in the action or state described by the verb.

Agent

The Agent is the animate entity that performs the action of the verb. For example, in "The dog chased the cat," the dog is the Agent.

Causer

The Causer is the entity that brings about a state or event, often without directly performing an action. For example, in "The heat melted the ice," the heat is the Causer.

Experiencer

The Experiencer is the entity that experiences a state or emotion. For example, in "He felt happy," "he" is the Experiencer.

Patient

The Patient is the entity that undergoes the action of the verb, often experiencing a change in state. For example, in "The cat ate the fish," the fish is the Patient.



Semantic Roles of Subjects

Instrument

an animate entity which acts on someone or something else because it is being used as an instrument.

Described – subjects that are simply characterized or described by the information in the predicate.

Located – subjects that are simply located in space.

Anaphoric “it” - linguistic term referring to the use of the pronoun "it" to refer back to something previously mentioned in the discourse.

Cataphoric “it” - a linguistic term referring to the use of the pronoun "it" to introduce a referent that is elaborated or specified later in the discourse.

Empty “it” - refers to the use of the pronoun "it" in a sentence without a clear referent.

Temporal - refers to the grammatical subject of a sentence that pertains specifically to time or temporal relations.

Locative - refers to the grammatical subject of a sentence that pertains specifically to location or spatial relations.



The Research Methodology

The study utilizes a quantitative research approach to analyze the frequency of occurrence of different semantic roles of subjects in various registers of English. The corpus for this research comprises texts representing written English, specifically focusing on fiction (FC) - the book "It ends with us" – Colleen Hoover (Chapter 22). The analysis aims to determine whether different media of language production exhibit distinct patterns in the employment of different semantic subject roles.

1

Corpus Selection

The corpus was carefully selected to ensure a representative sample of written English. The study focuses on fiction (FC), "It ends with us" – Colleen Hoover (Chapter 22).

2

Data Analysis

The chosen text is analyzed to identify the semantic role of each subject in the sentences. The frequency of each role was then calculated and compared across different registers of written English.

3

Interpretation

The frequency counts and their comparative analysis were interpreted to reveal potential differences in the use of semantic subject roles in different written English media.



Examples of Semantic Subject Roles

Let's delve into specific examples of how the different semantic subject roles manifest in written English. Analyzing actual sentences from the corpus will provide concrete illustrations of these roles in action.

1 Agent

Example: "We successfully got all of our stuff moved the day Ryle was off, and Allysa and I went furniture shopping the second day we moved in..."

2 Causer

Example: "I shake my head, because she can't fix all the parts of me Ryle broke on the inside."

3 Experiencer

Example: "I was too excited.". (experiencer of the emotion "excited").

4 It - Cataphoric Reference

Example: It's in that moment that I realize she thinks Atlas is the one who did these things to me.

It – Cataphoric Reference - It anticipates or refers to a later element or idea in the discourse, which is the moment of realization.



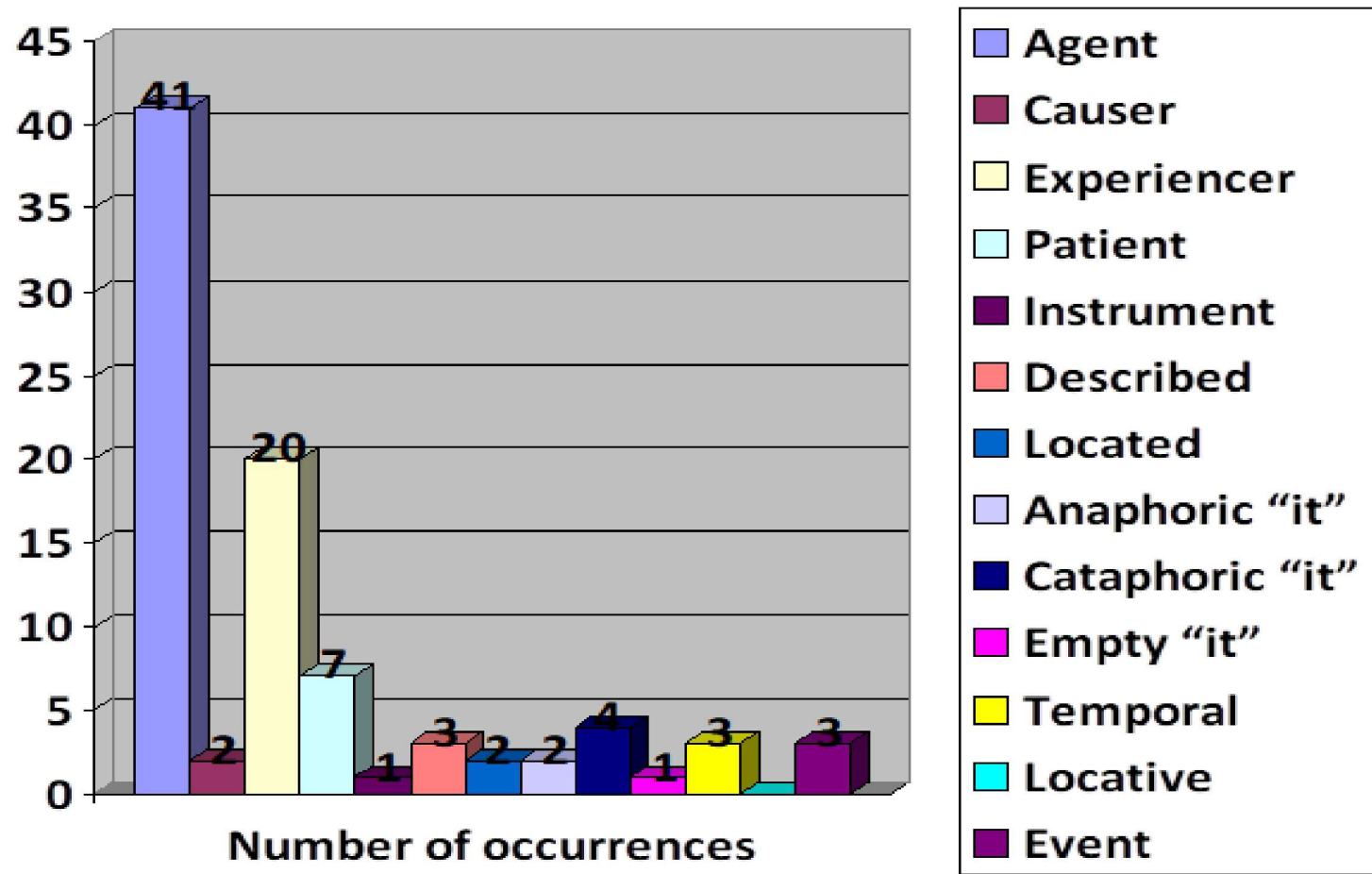


Analyzing the Frequency of Semantic Subject Roles

The quantitative analysis of the selected corpus allows us to examine the frequency of occurrence of each semantic subject role. This data provides valuable insights into the characteristics of different registers of written English.

<i>Semantic Roles</i>	<i>Number of occurrences</i>
Agent	41
Causer	2
Experiencer	20
Patient	7
Instrument	1
Described	3
Located	2
Anaphoric "it"	2
Cataphoric "it"	4
Empty "it"	1
Temporal	3
Locative	0
Event	3

The table above showcases an example of the frequency of different semantic subject roles in a sample of fictional text. The data suggests that the Agent role is the most frequent, followed by the Patient role. The analysis can be further expanded to compare these



The Importance of Semantic Roles in Language Understanding

Understanding the semantic roles of subjects is crucial for comprehending the meaning of a sentence. These roles help us decipher the relationships between the subject, verb, and other elements of the sentence, enabling us to interpret the actions, states, and events described. Moreover, studying the frequency of different semantic roles in various registers can provide valuable insights into the characteristics of different linguistic media, uncovering subtle differences in their structure and meaning.

Language Acquisition

Understanding semantic roles is a fundamental aspect of language acquisition. Children learn to associate different verbs with different semantic roles, enabling them to understand and produce grammatically correct sentences.

Natural Language Processing

In the field of natural language processing, analyzing semantic roles is essential for building computer systems that can understand and interpret human language. These systems rely on recognizing the thematic functions of words and phrases to process text and extract meaning.

Literary Analysis

Analyzing the semantic roles of subjects can offer valuable insights into the stylistic choices of authors and their impact on the meaning and interpretation of their work. Examining the frequency of different roles can reveal subtle shifts in tone, focus, and character development.



Future Directions for Research

The current study provides a foundation for further research into the semantic roles of subjects in English. Future directions could involve expanding the corpus to encompass a broader range of registers, including academic writing, news articles, and online discourse. This would provide a more comprehensive picture of subject role usage in various forms of written English.

1

Cross-Linguistic Comparison

A comparative study of subject roles across different languages would further enhance our understanding of the universality and variation of these roles.

2

Diachronic Analysis

Investigating the historical evolution of subject roles in English could reveal how these roles have changed over time and provide insights into the development of the language.

3

Computational Modeling

Developing computational models to predict the frequency and distribution of different subject roles based on various linguistic factors could offer valuable insights into the underlying mechanisms of language production.



Conclusion

This quantitative research has demonstrated the importance of examining the semantic roles of subjects in written English. The analysis has revealed the frequency of different subject roles and highlighted potential variations in their usage across different registers. Understanding the semantic functions of subjects contributes to a deeper understanding of the structure and meaning of language, providing valuable insights for researchers, language learners, and those interested in the intricacies of human communication.