
| RESEARCH ARTICLE

The Modification of Talmy's Three-step Process for Reading Comprehension of Legal Texts

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| ABSTRACT

This research aims to improve the comprehension of legal documents by using Talmy's (2017) three-step process for identifying and integrating references from contextual cues into linguistic forms. This study investigates the cognitive processes used to comprehend legal writing, drawing on ideas from pragmatics, discourse analysis, cognitive semantics, and Talmy's force dynamics notion. The study utilizes a qualitative content analysis method to examine how readers mentally handle cue detection, attention allocation, and semantic integration when they come across excerpts from court indictments. Data is collected from 10 Vietnamese indictments including various criminal counts. An analysis is conducted on the indictments to determine different sorts of contextual cues that are there. The study focuses on analyzing the distribution and interaction of cue categories (lexical, collateral, background, temporal) in order to better understand how they facilitate or impede the three-step process of comprehension. The aim is to identify factors that might improve or hinder understanding. The purpose of the results is to enhance readers' ability to effectively use contextual cues while interpreting legal processes, rules, and arguments in written form. This will ultimately improve the efficiency of understanding legal texts.

| KEYWORDS

Legal text analysis, Referent identification, Cognitive semantics, Force dynamics

| ARTICLE INFORMATION

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1. Introduction

Language comprehension entails the process of deciphering contextual signals through a three-step process: detecting cues, allocating attention, and integrating semantics (Talmy, 2017). Investigating this complex process has the potential to significantly improve our comprehension of language and the cognitive mechanisms that underlie it. Earlier research has looked at different parts of this three-step process, such as how the prominence of a cue affects the allocation of resources (Altmann & Steedman, 1988), how contextual cues help resolve ambiguity (Crain & Steedman, 1985), how to find chronological cues (Dahan & Tanenhaus, 2005), and how semantic integration varies between individuals (Pickering & Garrod, 2004). Nevertheless, these studies predominantly concentrated on particular components or employed methodologies that may not faithfully portray the interaction among the three stages during the course of time. Furthermore, a comprehensive investigation of contextual elements such as pragmatics and speech structure has not been conducted in depth (Huang & Snedeker, 2009; Rohde et al., 2011).

To overcome these limitations, this research employs an integrated strategy by utilizing experimental tasks that are rich in context to thoroughly examine the three-stage process. The study tries to determine the cognitive mechanisms behind each stage and their relationships by observing individuals processing sentences with different environmental signals. This study also looks at how contextual support, individual cognitive differences, and cue salience affect the outcome, with the goal of figuring out what makes this process work better or worse (Novick et al., 2008; Trueswell & Tanenhaus, 1994; Wilson & Sperber, 2004). The

study's findings may help to improve communication techniques and language processing models by providing a comprehensive understanding of the targeting system's components and interactions.

More precisely, the results of this research could improve understanding of legal process, regulations, and the arguments put forward in written legal papers. The study aims to clarify the cognitive foundations of language comprehension in order to improve the clarity and effectiveness of communicating complicated information in legal settings. In conclusion, this thorough examination of the three-step process of language comprehension shows potential for enhancing both theoretical understanding and practical applications in domains where exact comprehension is crucial.

2. Research solution

1.2. Literature review

1.2.1. Historical background

Talmy (2017) proposes a three-step process consisting of cue detection, attention allocation, and semantic integration to recognize and incorporate referents into linguistic structures. This approach integrates knowledge from pragmatics, discourse analysis, cognitive semantics, and Talmy's force dynamics principles.

Levinson's (1983) work highlights the significance of anaphora and deixis in transmitting speech context, with a specific focus on pragmatics, which examines language usage in different contexts. Huang's (2007) research emphasizes the importance of pragmatic information in comprehending the intended meaning of deictic and anaphoric expressions. These studies emphasize the importance of contextual cues in their detection.

Discourse analysis has deepened our comprehension of the interaction between different elements of language within wider contexts. Grice's (1975) theory of conversational implicature, which says that communication follows rules and principles of cooperation, has a big impact on how we understand the context of anaphoric and deictic phrases. This idea guides the process of distributing attention, giving priority to significant cues.

Cognitive semantics explores the connection between language and cognitive processes, providing a valuable insight into the integration of meaning. According to Ariel's (1990) accessibility theory, the comprehensibility of a referent shapes the use of anaphoric words, which link recognized referents with language structures.

Talmy's force dynamics idea, which investigates the interaction and transmission of force between entities, provides a framework for understanding language comprehension dynamics. The text examines the influence of specific cues on the listener's focus and understanding during the three stages. Thus, Talmy's methodology incorporates information from other disciplines, providing a comprehensive structure for analyzing the intricate cognitive processes associated with language comprehension. This amalgamation of concepts expands our understanding of how people navigate their environment and achieve effective interaction.

1.2.2. Talmy's (2000) three-step process

Talmy (2000) presents a three-step process that explains the cognitive processes used to recognize and combine referents from contextual inputs into language forms. This technique is especially crucial in comprehending legal writings, which can include intricate language and contextual information. The three steps are:

Cue detection:

At the initial phase, the reader has to recognize the contextual cues or cues that provide information about the intended referent. Verbal cues can include pronouns, descriptors, or language used for reference purposes. For instance, inside a legal document, the term "defendant" functions as a cue that refers to a certain person.

Attention allocation:

After the cues are detected, the reader needs to use their attentional resources to analyze and appreciate their importance. This entails giving priority to the most prominent indications while rejecting unnecessary information. Factors such as cue prominence, individual cognitive abilities (such as working memory), and contextual support impact the allocation of attention. Legal writings use several techniques, such as formatting, repetition, and placement, to highlight certain cues, affecting the reader's allocation of attention.

Semantic integration:

Semantic integration in legal literature involves using contextual and pragmatic cues to determine the intended meaning of words or expressions. This process resolves uncertainties, draws conclusions, and integrates the issue into the broader language structure. Talmy's (2000) three-step process focuses on understanding legal texts by identifying and integrating referents from contextual cues.

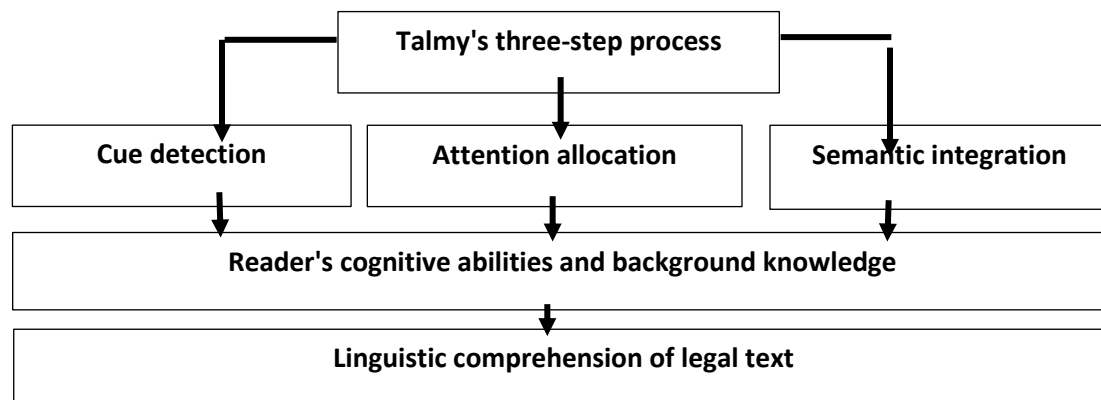


Figure 1. Talmy's three-step process in reading comprehension of legal texts

1.2.3 Cue categories in legal texts

Talmy (2017) posits that a cue is an indirect form of guidance that assists a reader in recognizing and comprehending the intended referent or meaning inside a text. Cues provide contextual assistance that enables the reader to narrow down and understand the precise topic that the writer intends to communicate. Legal documents may include many sorts of cues to facilitate comprehension:

Lexical cues:

Core cues in the text are derived from trigger words or phrases such as pronouns and adjectives, which indicate certain features of the referent.

Co-form cues are derived from the language features in close proximity to the trigger, aiding in the identification of the referent.

Collateral cues:

Targetive cues are characteristics exhibited by the referent itself that the reader can perceive from the legal text.

Reader-focus cues indicate that the reader's current object of attention may be the intended referent.

Background cue:

Environmental cues arise from aspects of the context or situation described in the legal text that help locate or define the boundaries of the referent.

Epistemic cues come from the reader's own knowledge and beliefs about the referent or legal subject matter.

Temporal cue:

Chronal cues rely on the timing or process in which the trigger or referent is mentioned in the legal text to aid identification.

Perichronal cues are temporal properties of other elements in the text that determine their relevance as cues for comprehending the referent.

2.2. Methodology

2.2.1. Method research

This study uses a qualitative research approach to assess the cognitive processes involved in Talmy's three-step model for reading comprehension of legal materials. It employs content analysis and text analysis tools to analyze written, spoken, or visual cues in communication. The research will examine legal text passages, focusing on contextual cues relevant to cue detection,

attention allocation, and semantic integration. The text samples will be carefully chosen to include various cue types, complexity levels, and legal contexts.

2.2.2. Data collection

Examining legal texts entails recognizing contextual indicators and integrating them with language patterns. This study examines Talmy's three-step cognitive process, which includes cue detection, attention allocation, and semantic integration. The analysis specifically focuses on the cues identified in Vietnamese indictments. We gathered data from 10 indictments, each covering a wide range of criminal charges, so order to illustrate a comprehensive range of legal situations. The indictments underwent a detailed examination to discover various cues, which were then sorted and condensed for a comprehensive study. Our objective is to investigate how these cues contribute to the understanding of legal texts and improve the cognitive processing of these documents. This method offers a thorough comprehension of the cognitive processes involved in comprehending legal text within the Vietnamese legal system.

2.2.3. Data analysis

The study uses Talmy's three-step model to analyze contextual cues for understanding legal texts. It identifies lexical, collateral, background, and temporal cues for each of the 10 coded indictment samples. The attention allocation stage examines the most prevalent cue types across the indictments, determining their distribution and frequency. The semantic integration stage examines how these cues facilitate or hinder comprehension of the legal text. The analysis of specific passages reveals how the interplay of cue types effectively conveys the intended meaning or leads to ambiguity. The findings shed light on the cognitive mechanisms that underlie the comprehension of legal indictments and identify potential areas for optimizing contextual cue usage to enhance clarity in legal contexts.

3. Three-step process in reading comprehension of legal texts

3.1. Step of cue detection

The aim of this section is to explore the first phase of cue detection in Talmy's three-step process for understanding legal texts. The study looks into how readers perceive and acknowledge different contextual cues, including lexical, collateral, background, and temporal cues, that are vital to comprehending the intended referents and meanings in legal communication.

3.1.1. Lexical cues in reading comprehension of legal texts

Lexical cues are crucial in understanding legal writings, serving as language markers for understanding complex vocabulary and concepts. Accurately identifying and analyzing lexical cues helps readers construct an effective conceptual comprehension of intended meanings and processes in legal circumstances. Core referents, such as nouns or phrases, represent the main things, individuals, or concepts relevant to the legal issue. In legal indictments, these key indicators are often used to identify the primary individuals involved, such as the defendant, accused, or victim.

Từ năm 2021-2023 tại Cần Thơ, bị cáo Dương Văn M đã tổ chức các đường dây đánh bạc quy mô lớn với nhiều đối tác khác nhau. Bị cáo đã bị kết án 6 năm tù. (CTR10)

(From 2021-2023 in Can Tho, defendant Duong Van M organized large-scale gambling operations with multiple syndicates. Defendant sentenced to 6 years imprisonment.)

The core referent *bị cáo Dương Văn M* (defendant Duong Van M) is a crucial lexical cue that establishes the individual at the center of the legal proceedings.

After identifying the core referents, readers must then locate the co-form cues, which are descriptive phrases or clauses that provide additional details about the core referents, such as time, place, or other contextual information. In the case of the gambling operation charge (CTR10), the co-form cues *từ năm 2021-2023 tại Cần Thơ* (from 2021-2023 in Can Tho) and *tổ chức các đường dây đánh bạc quy mô lớn với nhiều đối tác khác nhau* (organized large-scale gambling operations with multiple syndicates) offer crucial details about the nature, duration, and location of the alleged crime.

Through painstaking examination of linguistic cues, readers can get a more thorough comprehension of the noteworthy individuals, occurrences, and concerns within the legal dispute. Examine the provided passage from a legal document concerning the unlawful distribution of narcotics (CTR4):

Trong tháng 5/2022, bị cáo Phạm Văn E đã bị bắt quả tang khi đang vận chuyển 5kg ma túy đá qua biên giới Quảng Ninh. Bị cáo đã bị tuyên án tử hình. (CTR4)

(In 5/2022, defendant Pham Van E was caught smuggling 5kg of crystal methamphetamine across the Quang Ninh border. Defendant sentenced to death penalty.)

In this context, the key term *bị cáo Phạm Văn E* (defendant Pham Van E) serves to identify the main individual involved, while the additional terms *trong tháng 5/2022* (in 5/2022), *vận chuyển 5kg ma túy đá* (smuggling 5kg of crystal methamphetamine), and *qua biên giới Quảng Ninh* (across the Quang Ninh border) provide crucial information regarding the timing, nature, and location of the alleged crime.

Legal writings require precise identification and combination of linguistic hints to develop a cognitive structure for understanding complex information. This aligns with Talmy's theoretical framework, which emphasizes the importance of lexical cues in comprehension. Accurate identification of these cues sets the foundation for efficient attention allocation and meaning integration in later stages. Lexical cues help readers understand complex vocabulary and concepts in legal discourse, enhancing their comprehension of intended meanings, arguments, and processes.

3.1.2. Collateral cues in reading comprehension of legal texts

Collateral cues are crucial in assisting readers' understanding of legal texts. These cues originate from the inherent characteristics or properties of the object under reference, providing additional contextual information to facilitate precise identification and comprehension. We can classify collateral cues into two distinct subcategories: targetive cues and reader-focus cues. Targetive cues provide descriptive information about the subject's distinctive traits or attributes as portrayed in the legal text. For example, let's look at the following passage from a Vietnamese legal document:

Từ năm 2021-2023 tại Cần Thơ, bị cáo Dương Văn M đã tổ chức các đường dây đánh bạc quy mô lớn với nhiều đối tác khác nhau. Bị cáo đã bị kết án 6 năm tù. (CTR10)

(From 2021-2023 in Can Tho, defendant Duong Van M organized large-scale gambling operations with multiple syndicates. Defendant sentenced to 6 years imprisonment.)

In the present scenario, the term *các đường dây đánh bạc quy mô lớn* (large-scale gambling operations) acts as a targetive cue, offering essential information regarding the defendant's purported criminal activities, including their nature and magnitude. These cues enhance the reader's mental image of the referent by providing contextual information about underlying intrinsic features, situations, or attributes.

However, reader-focus cues direct the reader's attention to the particular entity or notion that should be the main focus of their cognitive efforts. Consider the sentence provided in Indictment CTR1 as an example:

Trong vụ án giết người xảy ra ngày 12/3/2022, bị cáo Nguyễn Văn A đã đâm chết nạn nhân Trần Thị B, một người hàng xóm, bằng một vật nhọn tại nhà riêng ở Hà Nội do mâu thuẫn cá nhân. (CTR1)

(In the murder case on 12/3/2022, defendant Nguyen Van A fatally stabbed victim Tran Thi B, a neighbor, with a sharp object at his residence in Hanoi due to personal conflicts.)

The phrase *vụ án giết người* (murder case) acts as a reader-focus cue, drawing the reader's attention to the central issue being discussed – a homicide case.

Legal writing involves a complex process of identifying and combining contextual and linguistic cues to provide a deeper understanding of topics. Clear collateral cues help readers identify unique features and focus on important components, while unclear or complicated language can impede comprehension. Talmy's three-step cue detection process relies on the careful integration of collateral and lexical cues, allowing readers to align their mental representations with the intended message in the legal text. Proficiency in identifying and combining supporting cues improves comprehension of legal texts, enabling readers to understand the subtleties, processes, and effects of legal processes, judgments, and arguments.

3.1.3. Background and temporal cues in reading comprehension of legal texts

To completely understand legal documents, readers need to be skilled at recognizing and using backdrop and temporal cues, as well as lexical and collateral cues. The cue categories play a vital role in providing important contextual information and time references, which are essential for accurately assessing the intended meanings and referents in legal language.

To begin with, background cues enhance the reader's understanding of the situational context and subject matter. They comprise two subcategories: environmental and epistemic cues.

Environmental cues originate with explicit information present in the law text, pertaining to specific circumstances, places, or occurrences. Examine the following passage extracted from a Vietnamese indictment:

Trong vụ án buôn bán ma túy xảy ra vào tháng 5/2022 tại khu vực biên giới Quảng Ninh, bị cáo Phạm Văn E đã bị bắt quả tang khi đang vận chuyển 5kg ma túy đã qua biên giới. (CTR4)

(In the drug trafficking case occurring in 5/2022 in the Quang Ninh border area, defendant Pham Van E was caught red-handed smuggling 5kg of crystal methamphetamine across the border.)

The *sentence trong vụ án buôn bán ma túy xảy ra vào tháng 5/2022 tại khu vực biên giới Quảng Ninh* offers significant contextual details on the drug trafficking case, including its particular nature, timing, and location of the crime.

Epistemic cues originate from the reader's prior knowledge and familiarity with legal concepts, processes, and terminology. For instance, understanding the term *Miranda rights* requires prior knowledge of constitutional protections for accused individuals (CTR1). By tapping into relevant background information, epistemic cues enable readers to accurately grasp the intended legal meanings.

Subsequently, temporal cues assist readers in placing information, events, or actions within a logical chronological process. They can be further divided into two subcategories:

First, choral cues specifically indicate the process or chronology of a referent's speech or action. As an illustration:

Trong vụ án hành hung xảy ra vào tháng 9/2021 tại Bình Dương, bị cáo Lý Văn L đã liên tục và dã man đánh đập vợ mình trong một thời gian dài. (CTR9)

(In the assault case occurring in 9/2021 in Binh Duong, defendant Ly Van L repeatedly and brutally assaulted his wife over an extended period.)

The expression *vào tháng 9/2021* functions as a temporal indicator, readily demonstrating the time period through which the claimed assault took place.

Next, perichronal cues relate to the timing or process of other textual elements, emphasizing their significance in comprehending the main referent. Consider the following example:

Ba tháng sau khi ký hợp đồng, bị cáo Trần Văn X đã lợi dụng chức vụ công chức để nhận hối lộ từ các doanh nghiệp. (CTR3)
(Three months after signing the contract, defendant Tran Van X exploited his position as a public servant to accept bribes from businesses.)

This phrase *ba tháng sau khi ký hợp đồng* (three months after signing the contract) serves as a temporal cue, helping to establish a reference point for comprehending the defendant's purported activities.

Legal language understanding is enhanced by correctly recognizing and using contextual and temporal cues. Talmy's theoretical framework emphasizes the importance of these cues in attention allocation and semantic integration. By detecting these cues, readers can construct a comprehensive context, prioritize relevant information, and resolve uncertainties. This helps in coherent interpretations of complex legal material. Recognizing and using these cues is crucial for legal practitioners, academics, and students to efficiently navigate and extract valuable information from complex legal papers. These cue categories provide essential context and temporal references.

3.2. Attention allocation

This section aims to investigate how readers distribute their attentional resources when understanding legal texts. Specific factors like cue salience, individual variations in cognitive capacities, and the contextual support offered by the text itself are highlighted, along with how these factors affect how effective the attention allocation process is within Talmy's three-step framework.

3.2.1. Cue salience in reading comprehension of legal texts

Contextual cues are crucial in legal documents, as they direct readers' focus and aid in understanding detailed information. These documents often contain complex linguistic patterns and large amounts of information, making it difficult for readers to identify and prioritize important aspects. The importance assigned to different cues greatly affects a reader's ability to navigate and comprehend complex legal situations. The prominence of a cue is influenced by factors such as its placement in the

text, linguistic attributes, and the reader's expectations and knowledge. More precise, conspicuous cues are more noticeable, while less noticeable cues may be hidden, unclear, or difficult to understand due to complex linguistic patterns. To illustrate the importance of cue salience, let us examine the following examples from Vietnamese indictments:

Từ năm 2019-2021 tại Đà Nẵng, bị cáo Trần Thị D, một kế toán, đã tham ô hơn 5 tỷ đồng từ công ty của mình. Bị cáo đã bị kết án 15 năm tù. (CTR3)

(From 2019-2021 in Da Nang, defendant Tran Thi D, an accountant, embezzled over 5 billion VND from her company. Defendant received 15 years imprisonment.)

In this excerpt, the highly salient lexical cues *bị cáo Trần Thị D* (defendant Tran Thi D) and *tham ô hơn 5 tỷ đồng* (embezzled over 5 billion VND) immediately capture the reader's attention, identifying the key individual and the specific criminal act involved. The temporal cue *từ năm 2019-2021* (from 2019-2021) and the environmental cue *tại Đà Nẵng (in Da Nang)* provide additional contextual information, further enhancing the salience of the core details.

Trong thời gian 2020-2022 tại Hải Phòng, bị cáo Vũ Thị F, một nhân viên ngân hàng, đã chiếm đoạt 2 tỷ đồng từ tài khoản của khách hàng. Bị cáo đã bị kết án 10 năm tù. (CTR5)

(During 2020-2022 in Hai Phong, defendant Vu Thi F, a bank employee, misappropriated 2 billion VND from customers' accounts. Defendant sentenced to 10 years in prison.)

In this case, the salient lexical cues *bị cáo Vũ Thị F* (defendant Vu Thi F) and *chiếm đoạt 2 tỷ đồng từ tài khoản của khách hàng* (misappropriated 2 billion VND from customers' accounts) immediately draw the reader's focus to the key individual and the nature of the alleged crime. The temporal cue *trong thời gian 2020-2022* (during 2020-2022) and the environmental cue *tại Hải Phòng (in Hai Phong)* provide additional contextual details, further enhancing the cues' salience.

Trong vụ án hiếp dâm xảy ra vào tháng 3/2022 tại Nghệ An, bị cáo Đặng Văn H đã xâm hại tình dục một nạn nhân nữ trẻ tuổi. Bị cáo đã bị kết án 18 năm tù. (CTR7)

(In the rape case in 3/2022 in Nghe An, defendant Dang Van H sexually assaulted a young female victim. Defendant sentenced to 18 years in prison.)

In this excerpt, the salient lexical cues *vụ án hiếp dâm* (rape case) and *bị cáo Đặng Văn H* (defendant Dang Van H) immediately capture the reader's attention, highlighting the nature of the case and identifying the key individual involved. The temporal cue *vào tháng 3/2022* (in 3/2022) and the environmental cue *tại Nghệ An (in Nghe An)* provide additional contextual information, further enhancing the salience of the core details.

Cues play a crucial role in Talmy's three-step language comprehension process. When prominent, readers can easily identify and prioritize relevant information, forming a strong foundation for understanding the next stage. In legal interaction, increasing cue prominence can improve readers' ability to navigate complex legal documents. Legal professionals, educators, and researchers can use tactics like unambiguous language, strategically placing important information, and effective formatting to enhance the visibility of crucial indicators. Cue salience serves as a cognitive signal, directing readers' focus towards the most important components in legal texts.

3.2.2. Individual factors in reading comprehension of legal texts

Individual factors like cognitive aptitude and personal attributes significantly impact readers' attentional allocation during comprehension. Working memory capacity is crucial for understanding written language, as it stores and manipulates information temporarily. Individuals with higher working memory capacity can efficiently allocate attention to relevant cues and maintain a coherent understanding of legal text's significance throughout the reading process.

Consider the following excerpt from an indictment:

Trong vụ án buôn bán ma túy xảy ra vào tháng 5/2022 tại khu vực biên giới Quảng Ninh, bị cáo Phạm Văn E đã bị bắt quả tang khi đang vận chuyển 5kg ma túy đá qua biên giới. (CTR4)

(In the drug trafficking case occurring in 5/2022 in the Quang Ninh border area, defendant Pham Van E was caught red-handed smuggling 5kg of crystal methamphetamine across the border.)

Individuals with higher working memory capacity are better at remembering and incorporating cues while reading, such as contextual information and linguistic clues. Prior knowledge and experience also influence attention distribution. However,

personal constraints and specific situations can impede focus distribution, making legal experts able to create tactics tailored to readers' proficiency levels to enhance their comprehension of complex legal papers. To illustrate further, consider this excerpt from a fraud case indictment:

Trong vụ án lừa đảo xảy ra vào tháng 11/2021 tại Hà Nội, bị cáo Hoàng Văn G đã lừa gạt nhiều nạn nhân bằng cách bán các bất động sản không tồn tại, trái phép chiếm đoạt gần 10 tỷ đồng. (CTR6)

(In the fraud case occurring in November 2021 in Hanoi, defendant Hoang Van G deceived multiple victims by selling non-existent properties, illegally acquiring nearly 10 billion VND.)

Individuals with strong working memory and understanding of fraud legislation can effectively focus on lexical cues, collateral cues, and backdrop cues to understand fraudulent acts. Factors like working memory capacity, prior knowledge, and experience significantly influence how readers allocate attention in understanding legal materials. Recognizing and dealing with these variations is crucial for maximizing attention allocation and gaining a deeper understanding of legal processes, arguments, and processes.

2.2.3. Contextual support in reading comprehension of legal texts

Contextual support is crucial for readers to effectively understand legal texts. It includes the text's organization, linguistic precision, and formatting cues. Accurate and unambiguous wording in legal documents aids comprehension by allowing readers to identify and prioritize crucial information. This is especially important when the language is free from unnecessary jargon or complex terminology.

Examine the following passage extracted from a Vietnamese legal document:

Trong vụ án lừa đảo xảy ra vào tháng 11/2021 tại Hà Nội, bị cáo Hoàng Văn G đã lừa gạt nhiều nạn nhân bằng cách bán các bất động sản không tồn tại, trái phép chiếm đoạt gần 10 tỷ đồng. Bị cáo đã bị kết án 8 năm tù. (CTR6)

(In the fraud case occurring in 11/2021 in Hanoi, defendant Hoang Van G deceived multiple victims by selling non-existent properties, illegally acquiring nearly 10 billion VND. Defendant sentenced to 8 years imprisonment.)

The sample effectively directs the reader's attention through contextual signals like short language, location, time frame, accused defendant Hoang Van G, and explicit allegations. The systematic organization and division of information, thorough formatting, and stylistic emphasis provide additional contextual reinforcement. The writing style offers clear, concise language without unnecessary legal jargon, enabling readers to understand the intended message more easily. Talmy's theoretical framework suggests that providing sufficient contextual assistance helps allocate attention, and legal documents conforming to optimal standards enhance attention allocation. Consider the following example from another indictment:

Trong vụ án hiếp dâm xảy ra vào tháng 3/2022 tại Nghệ An, bị cáo Đặng Văn H đã xâm hại tình dục một nạn nhân nữ trẻ tuổi. Bị cáo đã bị kết án 18 năm tù. (CTR7)

(In the rape case in 3/2022 in Nghe An, defendant Dang Van H sexually assaulted a young female victim. Defendant sentenced to 18 years in prison.)

The use of concise language, explicit mention of the crime (rape case), the temporal cue (3/2022), the location (Nghe An), and clear identification of the accused (defendant Dang Van H) and the victim, all contribute to strong contextual support. This facilitates effective allocation of attention to the critical details.

Legal documents can enhance their semantic processing by providing powerful contextual assists through structured formats, emphasis cues, and unambiguous language. This attention allocation is crucial for a comprehensive understanding of complex legal terminology concepts, processes, and arguments.

For instance, consider this excerpt from an indictment related to a smuggling case:

Từ năm 2021-2022, bị cáo Nguyễn Thị K thường xuyên buôn lậu số lượng lớn hàng hoá từ Trung Quốc qua cửa khẩu Lạng Sơn. Bị cáo đã bị kết án 7 năm tù. (CTR8)

(Throughout 2021-2022, defendant Nguyen Thi K regularly smuggled large quantities of goods from China through the Lang Son border gate. Defendant sentenced to 7 years imprisonment.)

The text emphasizes the importance of clear language, temporal cues, and contextual support in understanding legal documents. It highlights the role of defendant Nguyen Thi K, the description of illegal activity, and the location of the illegal activity at the Lang Son border gate. These elements help readers focus on important details and understand the legal process more effectively. The

use of logical organization, formatting clues, and a well-crafted writing style optimizes attention allocation, minimizing confusion and disorientation. This skill is crucial for legal practitioners, academics, and students, as it helps them develop a comprehensive understanding of complex legal concepts.

3.3. Semantic integration

This section aims to investigate the semantic integration phase of Talmy's three-step legal text comprehension process. It looks at how readers integrate specified referents into linguistic forms to derive intended meanings and arguments within the legal context. It also looks at how they resolve ambiguities, develop coherent interpretations, and account for pragmatic issues.

3.3.1. Resolving ambiguities

in language, particularly in legal texts, can hinder understanding due to multiple interpretations of words, phrases, or sentences. Legal terminology's complexities can create ambiguities, making it difficult to ascertain the intended meaning. To resolve these uncertainties, readers must employ various tactics and rely on contextual clues. One effective approach is to identify and integrate lexical cues, which are linguistic indicators that provide insights into the intended significance. Through careful analysis of adjacent words and phrases, readers can often perceive the intended meaning.

For example, let's examine the following passage from a legal document in Vietnamese:

Trong vụ án cướp tài sản xảy ra vào ngày 8/9/2021 tại Thành phố Hồ Chí Minh, bị cáo Lê Văn C đã dùng vũ lực giật một chiếc túi xách từ tay nạn nhân trước khi bỏ chạy. (CTR2)

(In the robbery case occurring on 8/9/2021 in Ho Chi Minh City, defendant Le Van C violently snatched a handbag from the victim before fleeing.)

In this example, the phrase *dùng vũ lực* (violently) serves as a lexical cue, clarifying that the act of *giật một chiếc túi xách từ tay nạn nhân* (snatching a handbag from the victim) was committed with the use of force, resolving potential ambiguity surrounding the nature of the crime.

Moreover, collateral cues, which arise from the intrinsic traits or attributes of the topic at hand, might also assist in clarifying uncertainties. Targetive cues offer descriptive details of the subject's unique characteristics or qualities, whereas reader-focus cues guide the reader's attention towards the specific item or concept that should be the primary focus. Take into account the following excerpt:

Trong năm 2020-2022 tại Hải Phòng, bị cáo Vũ Thị F, là nhân viên ngân hàng, đã chiếm đoạt 2 tỷ đồng từ tài khoản của khách hàng. (CTR5)

(During 2020-2022 in Hai Phong, defendant Vu Thi F, a bank employee, misappropriated 2 billion VND from customers' accounts.)

In this case, the collateral cue *nhân viên ngân hàng* (bank employee) provides valuable information about the accused's role and occupation, aiding in the interpretation of the phrase *chiếm đoạt tài khoản* (misappropriated accounts). Furthermore, the targetive cue *2 tỷ đồng* (2 billion VND) offers specificity regarding the amount involved, further clarifying the nature of the alleged crime.

Background cues, which include environmental and epistemic signals, are important for resolving ambiguity. Environmental cues originate from the specific contextual information presented in the legal text, whereas epistemic cues derive from the reader's preexisting knowledge and familiarity with legal concepts and terminology. Take into account the following illustration:

Trong vụ án hành hung xảy ra vào tháng 9/2021 tại Bình Dương, bị cáo Lý Văn L đã liên tục và dã man đánh đập vợ mình trong một thời gian dài. (CTR9)

(In the assault case occurring in 9/2021 in Binh Duong, defendant Ly Van L repeatedly and brutally assaulted his wife over an extended period.)

In this case, the environmental cue *vụ án hành hung* (assault case) provides crucial context, signaling the nature of the alleged crime. Additionally, the epistemic cue of understanding the legal implications of *đánh đập* (assaulted) and its severity, as indicated by the adverbs *liên tục và dã man* (repeatedly and brutally), aids in resolving any potential ambiguity surrounding the gravity of the offense.

Temporal cues, chroral cues, and perichronal cues help resolve uncertainties by situating events within a specific context. In legal situations, readers interpret ambiguous language by skillfully combining lexical, collateral, background, and temporal signals. Talmy's theoretical framework emphasizes the importance of resolving ambiguities and developing coherent interpretations for efficient semantic integration. This skill is vital for legal professionals, scholars, and readers, leading to more precise and reliable interpretations of the law.

3.3.2. Constructing coherent interpretations

Pragmatics studies how language use and interpretation are influenced by context and situational elements, crucial for determining intended meanings, creating coherent understandings, and resolving ambiguities in legal discourse. It identifies speech acts and their communicative goals, with precise speech acts like assertions, demands, or queries conveying unique pragmatic implications. Examine the subsequent passage from an indictment:

Từ năm 2021-2023 tại Cần Thơ, bị cáo Dương Văn M đã tổ chức các đường dây đánh bạc quy mô lớn với nhiều đối tác khác nhau. Bị cáo đã bị kết án 6 năm tù. (CTR10)

(From 2021-2023 in Can Tho, defendant Duong Van M organized large-scale gambling operations with multiple syndicates. Defendant sentenced to 6 years imprisonment.)

The verb phrase *tổ chức các đường dây đánh bạc* (organised gambling operations) is a spoken act that asserts the defendant's involvement in an illegal act. Recognizing the concrete impact of this statement serves as crucial for comprehending the seriousness and process of the accusation.

Another pragmatic factor to consider is the comprehension of conversational implicatures, which are obtained from following cooperative principles and maxims (Grice, 1975). Legal texts utilize implicatures to express specific meanings without explicitly stating them. As an illustration:

Trong vụ án hiếp dâm xảy ra vào tháng 3/2022 tại Nghệ An, bị cáo Đặng Văn H đã xâm hại tình dục một nạn nhân nữ trẻ tuổi. (CTR7)

(In the rape case in 3/2022 in Nghe An, defendant Dang Van H sexually assaulted a young female victim.)

The expression *xâm hại tình dục* (sexually attacked) demonstrates that the accused has participated in a sexual offence, even if the legal term rape is not explicitly included.

Moreover, pragmatic considerations comprise the identification of presuppositions and shared prior knowledge that are needed for efficient legal communication. Take into account:

Trong vụ án cướp tài sản xảy ra vào ngày 8/9/2021 tại Thành phố Hồ Chí Minh, bị cáo Lê Văn C đã dùng vũ lực giật một chiếc túi xách từ tay nạn nhân trước khi bỏ chạy. (CTR2)

(In the robbery case occurring on 8/9/2021 in Ho Chi Minh City, defendant Le Van C violently snatched a handbag from the victim before fleeing.)

The term *bị cáo* (defendant) is employed in a legal context when referring to an individual who has been charged with officially accused of committing a crime.

Talmy's framework emphasizes the importance of pragmatics in semantic integration, stating that understanding legal language requires integrating contextual and pragmatic information alongside linguistic structures. This approach helps resolve uncertainty, create coherent interpretations, and integrate meaning within legal systems. By acknowledging and utilizing pragmatic factors like speech acts, implicatures, and presuppositions, one can gain precise understanding, logical interpretations, and resolve legal uncertainties, making it crucial for legal practitioners and students.

3.3.3. Pragmatic aspects in reading comprehension of legal texts.

Pragmatic factors are crucial in understanding legal texts as they incorporate identifiable referents into language forms. Pragmatics studies how context and situational circumstances impact language use and understanding, providing insights into intended meanings, coherent interpretations, and ambiguity resolution in legal communication. It involves identifying speech acts and their underlying communicative objectives, as legal writings often use distinct speech acts with distinct pragmatic meanings. Examine the following passage extracted from a Vietnamese legal document:

Từ năm 2021-2023 tại Cần Thơ, bị cáo Dương Văn M đã tổ chức các đường dây đánh bạc quy mô lớn với nhiều đối tác khác nhau. Bị cáo đã bị kết án 6 năm tù. (CTR10)

(From 2021-2023 in Can Tho, defendant Duong Van M organized large-scale gambling operations with multiple syndicates. Defendant sentenced to 6 years imprisonment.)

In this particular case, the verb phrase *tổ chức các đường dây đánh bạc* (organized gambling operations) serves as a verbal act of assertion, explicitly declaring the defendant's participation in illicit endeavors. Understanding the strong impact of this remark is essential for fully grasping the seriousness and process of the charge within the legal framework.

Another realistic factor to consider is the perception of conversational implicatures, which are extrapolated from following cooperative principles and maxims (Grice, 1975). Legal documents commonly utilize implicatures to communicate precise meanings without directly articulating them. As an example:

Trong năm 2020-2022 tại Hải Phòng, bị cáo Vũ Thị F, là nhân viên ngân hàng, đã chiếm đoạt 2 tỷ đồng từ tài khoản của khách hàng. (CTR5)

(During 2020-2022 in Hai Phong, defendant Vu Thi F, a bank employee, misappropriated 2 billion VND from customers' accounts.)

The phrase *chiếm đoạt* (misappropriated) suggests that the offender participated in unlawful or unauthorized actions, despite the absence of the exact legal term embezzlement being explicitly used.

In addition, pragmatic concerns involve the recognition of presuppositions and shared background knowledge that are essential for efficient legal communication. Take into account:

Từ năm 2021-2022, bị cáo Nguyễn Thị K thường xuyên buôn lậu số lượng lớn hàng hoá từ Trung Quốc qua cửa khẩu Lạng Sơn. (CTR8)

(Throughout 2021-2022, defendant Nguyen Thi K regularly smuggled large quantities of goods from China through the Lang Son border gate.)

In a legal context, the phrase *bị cáo* (defendant) is used to refer to an individual who has been formally charged or accused of committing a crime.

Talmy's theory emphasizes the importance of pragmatics in understanding legal language. It suggests that integrating contextual and pragmatic cues with language frameworks is crucial for efficient understanding. Pragmatic elements, such as speech acts, implicatures, and presuppositions, are essential in Talmy's three-step process for semantic integration. These elements help individuals understand legal language, provide rational explanations, and address uncertainties. It is crucial for legal professionals and students to understand the complexities of legal language to achieve precise comprehension and effectively address legal uncertainties.

4. Conclusion

The study examines Talmy's three-step model for identifying and integrating referents in legal texts, with a specific focus on the role of contextual cues and their interconnections. The study used qualitative content analysis of Vietnamese criminal indictments to determine the primary components that influence cue detection, attention allocation, and semantic integration. The study showed that it is important to accurately identify and combine lexical, collateral, background, and temporal signals in order to make mental models that make sense and match legal interpretations. Cue salience, individual cognitive skills, and contextual support greatly influence the efficiency of attention allocation and disambiguation of pragmatic elements during semantic integration. The findings offer theoretical insights into the intricate interaction between Talmy's cognitive phases and their contextual variables within the legal field. The study also showcases the effectiveness of qualitative content analysis in systematically analyzing several cue categories in legal case scenarios. The findings enhance our understanding of the complex cognitive processes involved in interpreting legal texts. They are also important for advancing theoretical knowledge, improving research methods, and implementing practical strategies in the legal area.

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