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A Cognitive Stylistic Analysis of Schematic Knowledge Deviation of Inferno in Selected English Novels

A Dissertation
Submitted to the Council of the College of Education for Human Sciences, University of Babylon, in Partial Fulfillment of the Requirements for the Degree of Doctorate of Philosophy in English Language and Linguistics

By

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In the name of Allah, The Most Gracious, The Most Merciful.

(Allah) said: "This (way of My sincere servants) is indeed a way that leads straight to Me (41) For over My servants no authority shalt thou have, except such as put themselves in the wrong and follow thee (42) And verily, Hell is the promised abode for them all! (43) To it are seven gates: for each of those gates is a (special) class (of sinners) assigned (44) The righteous (will be) amid gardens and fountains (of clear-flowing water) (45) (Their greeting will be): "Enter ye here in peace and security (46).

(Sūrat Al-Hijr, 41- 46)

(Yusuf's Translation, 2003)

The Supervisor's Declaration

I certify that this dissertation, entitled (**A Cognitive Stylistic Analysis of Schematic Knowledge Deviation of Inferno in Selected English Novels),** is written by ***Abdul-Haq Abdul-Kareem Abdullah Al-Sahlani*** under my supervision at the College of Education for Human Sciences/ University of Babylon in Partial Fulfillment of the Requirements for the degree of Doctorate of Philosophy in English language and linguistics.

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To

*The heroic **martyrs**, the symbol of sacrifice.*

*My honorable **parents**, who have always given me everything*

in many incalculable Ways.

*My dearest late sister **Zainab** (may her soul rest in peace) whose remembrance touched the core of my heart and kept in there.*

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List of Abbreviations

Abbreviations	Full Forms
AI	Artificial Intelligence
AL	Applied Linguistics
ALPL	Advanced Level of Practicing Linguistics
APA	American Psychological Association
CL	Cognitive Linguistics
CS	Cognitive Stylistics
DA	Discourse Analysis
DS	Discourse Stylistics
IHMC	Institute for Human and Machine Cognition
PDF	Portable Document Format
POSA	Pattern-oriented software architecture
SI	Schemata Instantiation
SKD	Schematic Knowledge Deviation
TTRs	Type/Token Ratios
TXT	Plain Text Format
WS Tools	WordSmith Tools

ABSTRACT

This study delves into an intriguing issue: the cognitive challenges encountered by readers when they immerse themselves in literary texts, especially in relation to their background knowledge. The rationale behind this inquiry lies in the surprising scarcity of prior studies that explore Schematic Knowledge Deviation (SKD) of "Inferno" within the realm of literature. Consequently, this study endeavors to chart new paths within the academic discipline of cognitive stylistics, particularly in the context of literary analysis.

However, the study aims to demonstrate how readers' underlying prototypical schematic expectations can be activated at different levels to address SKD, emphasizing the cognitive defamiliarization process that occurs when various levels of detail deviate from readers' expectations. It suggests that a schematic challenge may require readers to retrieve unexpected information from their existing schemata rather than forming new ones.

Besides, it analyzes two novels by Dante Alighieri and Dan Brown, both are entitled "Inferno". Employing Cmap Tools, the study demonstrates the typical and excessively exhaustive levels of detail generated by readers. It utilizes a sequential sampling methodology, with (20) samples equally distributed and specifically extracted from the opening lines of the two Infernos. By triggering the most accessible and well-known levels of standard elements, the SKD is observed in both novels. Cmap Tools visually represent the hierarchical representation of schematic deviation on the cognitive level, while WordSmith Tools measure linguistic deviation resulted from Cmap Tools via Type-Token Ratios (TTRs) in the selected samples.

The TTR values for Alighieri's and Brown's opening lines range from (0.65 to 0.74) for the lowest values and (0.88 to 0.91) for the highest values. Despite the overall similarity in TTR values, Alighieri's opening lines exhibit the highest TTR value of (0.32), indicating a greater degree of linguistic deviation resulting from the SKD. On the other hand, Brown's samples show a lower TTR value of (0.30), but they contain a significant number of repetitive linguistic headers or tokens, suggesting a distinct linguistic deviation that cannot be assumed to be as likely as Alighieri's samples.

The main results reveal distinct linguistic headers and a high degree of textual multifariousness in Alighieri's "Inferno," indicating a greater degree of deviation resulting from SKD. Brown's "Inferno" does show linguistic deviation but with repetitive linguistic headers. The study concludes that SKD presents a cognitive challenge and affects readers' schematic knowledge, highlighting the importance of considering the interplay between readers' schemata and literary language in understanding and interpreting literary texts.

Chapter One
Introduction

1.1 The Problem

The presence of an identical title or shared narrative between two literary works is a remarkable and unexpected occurrence. However, it is crucial to discern the distinct perspectives presented by the narrators in order to fully comprehend and deeply appreciate their respective literary texts. Considered among the finest classic novels ever crafted, Dante Alighieri's 'Inferno' (1314) and Dan Brown's 'Inferno' (2013) hold an esteemed position within the literary realm.

Dante's Inferno is a renowned literary masterpiece that chronicles a man's harrowing journey through a desolate and disconcerting realm of hell, portraying its dismal nature and classifying its various degrees based on the severity of different transgressions (Babor and McGovern, 2007: 43). In contrast, Dan Brown's Inferno, the fourth installment in the Robert Langdon series, which includes Angels and Demons, The Da Vinci Code, and The Lost Symbol, was published by Anchor Books in the United States in 2013 (Goodreads, 2013). Notably, Brown's novel, as per Janet Maslin's review in the New York Times (2013), interweaves factual information with imaginative elements, employing the metaphor of a "plague" in reference to the devastating impact of the Black Death pandemic on humanity. This creative fusion of reality and invention serves as a compelling wake-up call to readers due to the imminent threat posed by overpopulation (Olivier, 2013). Within the narrative, the protagonist, Robert, endeavors to safeguard the world from a looming catastrophe by meticulously analyzing clues, interpreting symbols, and

deciphering enigmas, as he metaphorically confronts the rampant "virus" of overpopulation afflicting the entire planet.

When confronted with cognitively intricate subject matter, the abstract and detached nature of inferno representations in literature fails to evoke creative inspiration or recognition among readers. In essence, readers are required to ascertain not only the schematic information evoked within a given textual segment but also the specific levels of detailed information brought to mind by the schema and the reasons behind it .

The interplay between a reader's pre-existing schematic knowledge and the linguistic elements of a literary text during the reading process gives rise to Schematic Knowledge Deviation (SKD). This interaction presents a conceptual challenge to the reader's background knowledge, which constitutes a fundamental characteristic of literary texts that engenders schematic challenges throughout the process of literary comprehension .

Furthermore, the concept of a schema appears to be closely associated with the notion of expectations, as each encountered schema is compared to a stereotyped version previously stored in the reader's memory (Brown et al., 1983: 236).

Within literary works, such schematic expectations can either be thwarted or diverted in terms of the degree of information provided, leading to an abnormal surplus of excessively detailed information or an unusually scarce and insufficient amount. As a consequence, the anticipated level of information is not explicitly presented in the textual excerpts of the narratives, but rather implicitly reconstructed by the reader.

Considering these aspects, the following research questions can be formulated to delineate the problem under investigation:

1. What are the linguistic cues that determine the mental processes and mechanisms the two novelists utilize to create their literary language?
2. What are the schematic specifications readers activate to reach over- or underspecified interpretations of the literary text?
3. What are the mental frames or schemata constructed by the text of the two novels in hand to reveal the concept of Inferno?
4. Why does the schematic challenge trigger unexpected levels of detail within the reader's pre-existing schematic toolkit?
5. How can these levels be visually presented?
6. What are the linguistic side-effects that result from the SKD?
7. How can the linguistic side-effects measurement be used as an index of schematic knowledge deviation, and thus identify the degree of deviancy?
8. What does the schematic challenge provide readers with? Does it destroy old schemata or create new ones?

1.2 The Aims

This study aims at:

1. Identifying the linguistic/ textual cues the two novelists use in creating their literary language.
2. Pinpointing how cognitive deviation brings up certain levels of specificity with varying degrees of over-specification and/or under-specification.

3. Knowing what the mental frames or schemata are in constructing the text of the two novels with reference to Inferno concept.
4. Figuring out the way the schematic challenge triggers unexpected levels of detail within the reader's pre-existing schematic toolkit.
5. Providing a clear cut visualization of how the schematic knowledge deviation be posed by activating certain levels of schematic default elements across the network of the reader's prototypical schematic expectations.
6. Finding out the linguistic side-effects resulting from the SKD, such as the process of cognitive defamiliarization, which in turn takes place via a sort of schematic deviation.
7. Discovering the possibility of measuring the degree of the linguistic deviation resulting from the SKD.
8. Showing how the SKD creates unexpected levels of detail rather than destroying the old ones.

1.3 The Hypotheses

To achieve the aims of the study, the researcher hypothesizes the following:

1. The two novels fulfill the concept of Inferno via linguistic clues or headers.
2. Whether the issue is (under-) or (over-) specification, the levels of information generated in a piece of literature are typically a creative effect of the author's conscious or unconscious choices.
3. The reader may expect every accessible detail to be avoided and passed over in an ordinary schema building.

4. The two *infernos* explicitly point to various schematic structures that trigger specific levels of complexity or recoverable default aspects of a schema.
5. Because these default aspects are presumed to be part of the readers' and narrators' common background knowledge, they are not explicitly observed but are intuitively retrieved.
6. The highly detailed descriptions (i.e., interpretations) of the Inferno concept across the two novels in question deviate from the readers' general schematic expectations, and thus reflect equivalent side-effects on the linguistic level.
7. The degree of linguistic side-effects resulting from the SKD can be measured via using Type/Token Ratios (TTRs) extracted from WordSmith Tools.
8. Within the context of SKD, the acceptable amount of information or specificity in a given schema is entirely controlled by the text producer's creative and stylistic aims.

1.4 The Procedures

This study tackles two basic parts, *theoretical and practical*:

1. The theoretical part represents the literature review: a general review of what has been said and done about the scope of this study from different viewpoints and perspectives. Three chapters (one, two and three) fairly present this part.
2. The practical part explores the ways of collecting, modifying and analyzing the textual data of this study. Chapters Four, Five and Six cover this part in detail. The major criteria this part has built its bases on are outlined in the following points:

a) **Designing**:

designing the developed schematic deviancy framework (see Section 4.3) based on a very interesting dichotomy (i.e., over-specification and under-specification dichotomy). Such a dichotomy might be initiated unexpectedly by any good reader when reading the two *Infernos* and/or their opening lines. As for designing the data, they have a sense of *reliability* which is achieved through authentic investigation as follows:

1. The researcher firstly downloaded the required data from the most authentic and reliable website, (i.e., www.gutenberg.org).
2. After making sure that these digital texts are the exact copies of the original ones, they are segmented into (20) samples. Each sample holds an approximate number of tokens which is (50).
3. Finally, these samples are transformed from Portable Document Format (PDF) into Plain Text Format (TXT) so that our user-friendly software application (WordSmith Tools) would accurately do its job.

More importantly, two very trustworthy sources have been used to identify the opening lines of the two *Infernos*. These are the critical notebooks of Dante's *Inferno* by James Roberts and Nikki Moustaki (2001) and Brown's Decoded *Inferno* by Michael Haag and Greg Ward (2013). The two notebooks were used not only to figure out the size of each sample, but also to support what the two novelists claim and what possible interpretations readers may get during their reading of the novels at hand.

b) **Unitizing**:

identifying the different levels of detail resulting from the textual headers that the two *Infernos* provide.

c) **Sampling**:

selecting the data samples qualitatively and representatively and dividing up the samples in terms of a non-probabilistic sequential sampling method.

d) **Reducing**:

since they are bulky and large in size (i.e., Dante Alighieri's *Inferno* holds 377 pages; Dan Brown's *Inferno* holds 262 pages), the data at hand have been reduced to deal only with the opening lines of the ten chapters extracted from the two novels. Such a procedure helps the researcher understand the emerging cognitive patterns and concepts of what a reader might expect using his/her schematic background. Thus, the schematic deviation of the two *Infernos* will be identified.

e) **Graphic Sketching**:

data analysis will be cognitively and graphically visualized in terms of a software program created by the Florida Institute for Human and Machine Cognition (IHMC), known as *Cmap Tools.*

f) **Calculating**:

Since the cognitive deviation occurred at the schematic level has its own side-effect on the linguistic level, the outcome, resulting from Cmap knowledge toolkit, will be quantitatively calculated via *WordSmith Tools*. This study will specifically calculate the TTRs found in each sample so that the researcher will be in a position not only to compare the TTRs obtained from the textual samples before and after data analysis for the

sake of identifying the most luxurious novel in terms of its textual header, but also to measure the degree of the linguistic side-effects—resulted from the schematic knowledge—scored in each novel.

g) **Inferring**:

drawing sensible conclusions from the levels of detail produced in this study.

h) **Narrating**:

reporting on the findings and conclusions of the current study.

1.5 The Limits

This study is concerned only with one specific area amongst the ramifications of the cognitive approach. This area is referred to as cognitive stylistics which itself holds a variety of further investigation lines. It is limited to discuss how SKD occurs when readers attempt to reach certain interpretations of literary works, specifically the literary works selected in this study: that of Dante Alighieri's (1314) *Inferno*[1] and that of Dan Brown's (2013) *Inferno*. In order to keep the data representative, this study deals only with the opening lines of the chapters extracted from the two *Infernos***.**

[1] Dante Alighieri's "Inferno" is an epic poem. In 1867, Henry Longfellow took on the challenge of turning it into an English novel while preserving its essence and themes. This transformation involved rewriting it in prose, enhancing dialogues and descriptions, adding multiple perspectives, developing characters, using modern language, choosing a narrative style, rearranging the structure, and introducing new plot elements. Longfellow's translation is thus examined in this study, as it captures the original epic in a more accessible novel-like form.

1.6 The Value

The study holds value for various stakeholders in the realm of literature and cognitive studies, including future researchers, novelists, readers, and literary critics. Here are the specific benefits for each group:

Future Researchers: The study provides a foundation for future researchers to build upon. It offers insights into the cognitive processes involved in readers' engagement with literary works, specifically focusing on the interplay between schemata and interpretation. This knowledge can inspire further investigations into other literary texts, genres, or cognitive aspects of reading, fostering a deeper understanding of the complex relationship between readers and literature.

Novelists: The study offers novelists valuable insights into the cognitive dimensions of reader response. By understanding how readers' schemata influence their interpretation, novelists can craft narratives that engage readers on multiple levels and stimulate diverse interpretations. This awareness can enhance their ability to create complex characters, symbolism, and allegory that resonate with readers and prompt thoughtful engagement.

Readers: The study benefits readers by illuminating the cognitive processes involved in their reading experiences. It encourages readers to reflect on how their schemata shape their understanding of literary works, fostering a deeper appreciation for the complexity of interpretation. Readers can become more conscious of their own biases and the influences of their schemata, leading to richer and more nuanced engagements with texts.

Literary Critics: The study offers literary critics a deeper understanding of the cognitive dimensions underlying literary analysis. By recognizing the influence of readers' schemata, critics can approach their analyses with a more comprehensive perspective. They can consider how readers' cognitive frameworks interact with the text, leading to varied interpretations and contributing to the ongoing discourse in literary criticism.

Language Teachers: The study provides language teachers with practical implications for teaching literature and improving reading comprehension. By understanding the influence of schemata on interpretation, educators can design strategies that help students engage with literary texts more effectively. They can guide students in developing cognitive flexibility, critical thinking skills, and cultural awareness, fostering a deeper appreciation for literature and enhancing their overall language proficiency.

Overall, the study's value lies in its potential to inspire future research, inform novelists' storytelling techniques, deepen readers' engagement with literature, provide insights for literary critics, and offer practical implications for language teachers. It contributes to the broader literary landscape and fosters a more profound understanding of the cognitive dynamics involved in readers' interactions with literary works.

Chapter Two
Literature Review

The present chapter is an attempt to figure out the relationship that governs three basic areas of investigation: *Stylistics*, *Cognitive Linguistics* (CL) and Cognitive *Stylistics* (CS), and how these areas can work hand in hand to be held later by *Schema theory*. To know what that relationship is, the study within the linguistic range needs first to dig out the major areas of interest of these three areas. Then, it will be in a position to gain a perfect insight about the first two fields with respect to their shared area *Cognitive Stylistics* and about the term *Schema* with respect to the concept of *Schematic Knowledge Deviation.*

2.1 Stylistics: What is it?

Stylistics, in fact, has an inordinate verity causing an argument among linguists within 'linguistics' and critics within the ground of 'literature'. Some would turn down the interests of such a field; others set eyes on that it is such a significant offshoot within the science of Applied Linguistics (AL). Since it is an extensive term, this debate comes from the fact that it is rigorous to mark what Stylistics minutely is.

Dating back to (1969), Crystal and Davy mark that linguistics is an academic discipline attentive to examining languages scientifically; while stylistics is a branch of that discipline engaging in studying appointed sides of variations, which occur within the language people use (ibid). Stylistics, in this direction, is a sub-discipline of linguistics which is concerned with the systematic analysis of 'style' in a certain language and how this, according to Leech (2013: 54), might vary due to

considerable factors, such as the context, genre, author and/or historical period.

Wales (2001: 2, cited in Waheeb, 2017: 2121) within the same ground, notarizes that stylistics goes hand in hand with the umbrella term 'Applied Linguistics (AL), putting a heavy emphasis on how a particular style can be explored in texts, predominately in literary works.

Jeffries and McIntyre (2010: 1) proclaim that there is indeed 'the individual style' that differentiates one writer or author from another, as a result these different styles are correlated with specific genres (e.g., 'newspaper language' or the gothic novel). This will lead to what might constitute the characteristics of literary style. In this case, and due to what Wales (2016: 438) reports about, analyzing a particular style reveals what formal characteristics of a particular text are, and these should be analyzed systematically to determine their functional significance in interpreting the text in question.

Leech and Short (2007: 11) raise a rather remarkable question about style status wondering that: why does an author select this kind of code or expression and not the other?

Accordingly, the goal of figuring out the links between language use and artistic function drops out within the so-called 'literary stylistics' (ibid). That is why Chomsky, (2000: 15), state that: "we find that words are interpreted in terms of such factors as material constitution, design, intended and characteristic use, institutional role, and so on".

In this respect, Finch (2005: 187) splits a great deal of ink on how people use their language and on how they adopt a nominated style of some sort. Therefore, people in general make a picking from a variety of syntactic and lexical bearings. This is done due to the purpose they look

for in communication (ibid). Thus, stylistics is simply defined as the linguistic study of 'style' (Leech and Short, 2007: 11).

Whatsoever, stylistics aims at making connections between linguistic properties and how these have their own effects on readers (Rundquist, 2017: xvi). Roger Fowler (1986, cited in Douthwaite et al., 2017: 3), is one of the pioneers of stylistics who confirms that stylistics is not an elite, ivory tower of intellectual practices of drilling human minds and personas. Rather, it is an activity task of social criticism (ibid). Staying in the forefront of such a line of inquiry, Van Peer (cited in Martindale, 2008: 229-230) denotes that stylistics is expanded by Russian Formalism via Prague Structuralism. It deals with the concept of 'estrangement', or "deviation from normal usages" (Francis, 2017: 44).

Taking it from a different perspective, Norgaard et al. (2010: 1) state that stylistics is willing to be engaged with the ways in which 'meaning' is generated via language in literary texts and other sorts of texts. This elucidates that style is attached with a deviation from a norm, or the normal use of the language. That is for reaching literary, persuasive, rhetorical or other aesthetic effects (Hickey, 1993: 574). Thus, stylistics is set as a sub-branch of linguistics whose purpose is to seek for the distinctive lingual expressions or the style itself (Verdonk, 2002: 2). Not to mention, It helps critics or linguists providing them the huge potentialities of appreciation (Simpson, 2004: 2).

Moreover, stylistics is concerned with utilizing linguistic methodologies to shape the notion of style in a fixed language (Finch, 2005: 187). Therefore, Norgaard et al. (2010: 4) put the basic aim of stylistics to mark the style of certain texts, genres or authors and describe analysts' intuitions about the texts making them fully aware of the

linguistic patterns and their properties. Stylistics, as it is seen by Trask (2007: 280), puts its fundamental interests on the aesthetic uses of language, especially those which happen to occur in literature .

Over and above, the term 'Style', at the beginning, comes from *stylus* which is a Latin word used to come with certain words, such as "hard wood, bone, metal or reed" (Stokes, 2011: 81). It refers to a stick used for writing things. Thereafter, *stylus* is transmuted into *style*, especially the style of writing (ibid). Notwithstanding the evidence, various interests, situations, occupations or even social roles trigger various uses of language (Stern, 1983: 125). This proves that to make various styles, domains, or registers are adopted by native speakers (ibid). Styles, for instance, have been scaled down from high to low on five categories; frozen, casual, formal, intimate and consultative (Joos 1961, cited in Stern, 1983: 125). This helps linguists to hold a better view of how people have various choices in addition to their functional variations within one language (ibid).

As a concluding word, Lucas (1974: 31) says that:

> the study of style in education has three main objects—the appreciation of English; the mastery of English; and the purity of English. If anyone does not find these three important enough, he seems to me greedy (ibid).

In this respect, dealing with a particular style means characterizing the formal features of the texts to highlight their handy purposes for the interpretations of the texts (Thornborrow and Wareing, 1998: 3). Finally, Crystal and Davy (1969: 9) afford their idea about what 'style' might refer to: language habits or the uniqueness of individuals are based on "occasional linguistic idiosyncrasies". This what leads to style in general

and a variety of styles in particular (i.e., one's style is different from the other) (ibid).

In a nutshell, stylistics has various areas of interest that any researcher attempts to reach including: investigating the linguistic patterns, figuring out the style of the writers/authors and their texts as well as the language itself. By means of these areas, stylistics proves to be a robust, useful, and important tactic to study texts, discourses, and even the ways of how and why people use this kind of style, and not that one. Having a variety of views and definitions of the term stylistics at hand, one can notably see that there is no total agreement among linguists about what stylistics is trying to arrive at. This is due to the fact that every linguist takes his or her own view on the term in question.

2.2 Major Approaches and New Insights in Stylistics

Following the previous viewpoints and definitions, the majority of those who are interested in the field of stylistics sometimes do not have a clear-cut distinction of what stylistics really is. This might lead to their inability to accurately understand the mechanism of how stylistics works and/or how even cognitive stylistics has its own blueprints on the way readers interpret the texts they read. Therefore, the researcher has decided to disband almost all the facts about stylistics, starting from its origin and ending with its recent developments, for the sake of putting readers in an integrated picture about 'stylistics' in general and cognitive stylistics in particular.

2.2.1 Classical Stylistics

2.2.1.1 Linguistic Stylistics

Taking a first glance at the fundamental well-established approach to stylistics in history, linguistic stylistics is constituted from three eras: Russian Formalism (e.g. Shklovsky, 1914; Jakobson, 1960), to be termed later as formalist stylistics, the American New Criticism (e.g. Wimsatt and Beardsley, 1954), and Generative Grammar (e.g. Ohmann, 1964; Thorne, 1965), later known as generative stylistics. Then, it is called syntactic stylistics (Austin, 1984), structural stylistics (Taylor, 1980) and thus, textual stylistics (Bradford, 1997).

Turning into a new shift, the linguistic patterns of a text can be statistically labelled under the term Computational Stylistics (see Gibson, 1966; Milic, 1967). Carter in this sense, defines linguistic stylistics as:

> the purest form of stylistics in that its practitioners attempt to derive from the study of style and language variation some refinement of models for the analysis of language and thus contribute to the development of linguistic theory (in Short (ed.), 1988/1989: 10).

Digging deeply the major interest of such an approach, it is held by a descriptive linguistic analysis with the aid of certain models and methods of stylistic analysis of literary texts (Udeze et al. 2017: 116). Rolling around the conclusive objective of linguistic stylistics, its task is to describe rather than interpret or appreciate literary texts by way of utilizing a linguistic theory (ibid). This indicates that the linguistic description is symmetric, but incomplete. Halliday (1966: 67) in this regard, declares that “linguistics alone is insufficient in literary analysis, and only the literary analyst - not the linguist - can determine the place of linguistics in literary study”.

Having originally been on one side, linguistic stylistics does not succeed to meet all the requirements of a multi-level convenient stylistic analysis of literary texts (Ghazala, 2011: 15). That is why it could not be out of the criticism and objections against it as one-sided which only deals with linguistics, ignoring the interpretive aspects of the texts (ibid). Therefore, the coming couple pages will deal with a more reliable and authentic stylistic approach to the analysis of literary texts, known today as *Literary Stylistics*.

2.2.1.2 Literary Stylistics

Literary stylistics or *practical stylistics*, is originally derived from Halliday's functional linguistics (1964) to be termed later as *Functionalistic Stylistics* for its engagement with language functions. It refers to the study of literary style taking it from a linguistic perspective (Andrews, 2018: Ch. 10). Its major concern deals with the appreciation and/or interpretation of literary texts via the investigation of how a language is practically organized (Magulod Jr., 2018: 2).

From this, one can say that *literary stylistics* concerns itself with the interpretation of literary texts, and this is its ultimate objective. As for the evidence, any literary stylistic interpretation is highly centred on the text. It is derived from and confirmed by the stylistic features and functions of the language of the text (Huang, 2015: 58). As for Simpson (2004: 2), he defines stylistics as "…a method of textual interpretation in which primacy of place is assigned to language".

Then, the declaration is clearly made in that "The text's functional significance as discourse acts in turn as a gateway to its interpretation" (ibid). The whole process of interpretation, as a result, is inseparable in

practice. This is due to the set of choices in hand (Snodgrass and Coyne, 2006: 113) .

Stylisticians, however, do not account on the author's misunderstandings in interpreting styles. Rather, they rely on individual sophisticated intuitions, experiences, world knowledge, literary texts, as well as social, cultural, and ideological thoughts and beliefs. It might have been heavily dependent on reading practices (Culler, 1975, 1981; Ghazala, 1987: 56). Over the last two decades, modern stylistics has a lot to say more about other types of context. In this respect, Simpson (2004: 3) states that *utterances* are generated in time, place, cultural and cognitive contexts.

These extra-linguistic units are closely related to the meaning of the text, leading to Bradford's concept of *Contextual Stylistics* (1997: 73). Following such a concept, its various factions are united with an emphasis on how writing style is shaped and influenced by its context. These include: (1) reader skills and propensity; (2) The dominant socio-cultural power that governs all linguistic discourse, including literature. (3) A semantic system for processing and interpreting all verbal and non-verbal, literary and non-literary phenomena (ibid).

In other words, the stylistic context is more panoramic. It has been socialized, culturalized, historicized, conceptualized, spiritualized and feminized, so to speak. To this end, the context remained undecided (see Figures 1 and 2) to further explain the main stages of stylistic development in history up to date.

2.2.1.3 Affective Stylistics

Dealing with a different development in classical stylistics, now the direction will take its path to the *reader* (i.e., reader-centred), known

today as Stanley Fish's 'Affective Stylistics' or *Emotional Stylistics*. An impressive move has taken into consideration by Fish (1970, 1980) in the modern history of stylistics. It can be also termed as *reader-response stylistics* (Hall, 2022: 29). Affective stylistics has its origins in The *Death of the Author* by Bath (1968), S/Z by Bursh (1970), and *The Verbal Icon* by American New Criticism (Wimsatt and Beardsley, 1954).

However, Fish (1980: 13) has elaborated on the relationship that occurs between the reader and the text in a more differentiated way. He focuses on the reader's reading activities, not on the text: *How do these reactions develop in the process of reading? What mental manipulations does a reader experience while reading*? And *how he reacts to the words of the text, the structure of the sentence, the language itself*, and/or in Fish's words, "the formal features" or "demarcations in the text" (ibid). To him, *text* is an event that affects the reader, and the reader in turn shapes it.

Therefore, there is what is known today "Affective Stylistics". The basis of this kind of stylistics is to consider what Fish calls the "temporary" flow of the reading experience. The reader is considered to be responding in relation to the flow (that is, the words in the sentence) rather than the entire sentence.

The reader finally responds to the first word, then to the second word at some point. Each of these responses is described as an "act of interpretation" (Fish, 1980: 25). It seems that the focus here is not on interpretation, but on reader activity and reading behavior. This ambitious stylistic approach shifts the focus to the reader's mind, psychology, activities and reading experience. Nevertheless, Fish could not clearly represent the data that the reader counts to respond to what the reader has

read. Such data include, among other things, the norms and practices of reading literary texts, culture, personal prejudices and ideologies (see Culler, 1981: Ch. 6; Eagleton (1983); and Bradford (1997: 78-80).

2.2.2 Contemporary Stylistics

2.2.2.1 Evaluative Stylistics

Leech (2008: 69) states that stylistic analysis does not lead to value judgment, but rather presupposes it. Thus, evaluation is implied within stylistics. Further evidence of the implicit evaluation mode in modern stylistics is that stylisticians acknowledge the subjective nature of the analysis. This is achieved through the socio-cultural and ideological backgrounds of text selection, text analysis models, and stylistic functions, effects, appreciation, and text interpretation (Ghazala, 2011: 18). Leech (ibid) believes that this implicit evaluation mode is a rather sophisticated in stylistics.

Short (1988: 67-8), in a report submitted at Lancaster University in the United Kingdom, proposes certain evaluation strategies underlying the stylistic evaluation of texts in general: *Expectations*, *Relevance* and *Cohesion*. He says that the process of evaluation depends decisively on the expectations created by linguistic means as well as other means in the text. This means that one can further distinguish between the two subordinate aspects of expectations: relevance and cohesion, each of which contributes to general expectations in its own way. He (ibid) proceeds that *cohesion* is a structural term related to the actual text structure, and *relevance* is a parallel functional term related to the meaning of communication.

Perhaps Fish's emotional stylistics is evaluative on the surface, but indirectly through the reader's own reaction and the authority of community interpretation. In that case, evaluation is the focus of this type of stylistics. Finally, as one can clearly notice that, modern stylistics indirectly practice evaluation. It focuses on the text and reading process in a more effective and natural way, apart from the author's personal evaluation (Simpson, 2004: 134-5).

2.2.2.2 General Stylistics

General stylistics is "a cover term to cover the analyses of non-literary VARIETIES of language, or registers" (Wales, 2011: 438). Having examples of this type in hand, Crystal and Davy (1969), Freeborn et al. (1986), Carter and Nash (1990) and Ghazala (1994, 1999) have followed such a kind of stylistics. Its purpose is to characterize different types of language or registers, such as: spoken language, speaking and writing, legal English, literary and literary styles, non-literary English, scientific English, newspaper English, religious English, political English, advertising English, TV and radio commentary English, etc. (Ghazala, 2011: 19).

For the above statements, a distinguishing feature of these varieties is their functions and the way they have their own effect in each variety. This is stylistically done in terms of the linguistic description of stylistic features and their effects. Linguistic stylistics, in this sense, is very useful here because it helps English users recognize the stylistic features that distinguish each type of English. This is due to its usefulness when using written or spoken languages in different texts or contexts. Hence, general stylistics does not include any kind of appreciation or evaluation.

2.2.3 Recent Developments in Stylistics

Due to their growing influence in the field of stylistic studies, it is high time to introduce five major updated approaches grouped together under the umbrella of *modern Stylistics*.

2.2.3.1 Pedagogical Stylistics

The term is best defined by Wales (2014: 438), as a stylistic activity that is increasingly being employed as a teaching tool in language and literature studies for native and non-native English speakers (see Rodger's Classroom Stylistics, 1982)**.** According to Simpson (2004: 2), stylistics has grown in popularity as a highly valued strategy in language teaching and learning due to its use of linguistic and literary features in teaching language and literature.

In its pedagogical fashion, with its keen interest to the extensive resources of language system, stylistics enjoys "particular pride of place in the linguistic armoury" of second language learners (ibid). Thus, the importance of the linguistic approach to literature has been emphasized, in pedagogical explorations, of how to conduct a stylistic analysis in the classroom (Sotirova, 2022: 34). It is concerned with teaching students how to develop their style through exercises such as sentence combining (Mailloux, 1984: 213).

One can ultimately conclude from what has been mentioned so far that stylistics is, understandably, a means to an end, taking its shot to assist students in making sense of literary language. It acquaints them with language and allows them to read and write with greater acuity. Throughout the process, they would notice distinct linguistic/stylistic features and their implied functions as they work toward a more complete

understanding, appreciation, and possibly how to interpret literary texts via the use of their language.

2.2.3.2 Discourse Stylistics

Discourse Analysis (DA) is a groundbreaking field of linguistics that thrived throughout the 1980s. The term "discourse" is derived from the French word "discours," which is also used in the English language alongside "discourse" (see Wales, 2014: 128-9). It is usually used synonymously with 'text,' but not exactly. Meaning that *discourse* is a broader term that encompasses interaction, communication, and situational context (ibid: 130). Typically, discourse was intended to refer particularly to spoken language, as described by Crystal (1992: 25) as "...a continuous stretch of (especially spoken) language larger than a sentence".

However, a literary text, such as a novel, can be a complex of many discourses, exhibiting what Leech and Short (1981) refer to as embedded discourse: "the occurrence of discourse within discourse, such as when the author reports dialogue between fictional characters" (p. 146). Simply put, 'text' is the shape of the message, whereas 'discourse' is the author's speech participation and attitudinal coloring (Fowler, 1977: 72).

According to Brown and Yule (1983: ix), DA has a wide range of meanings that encompass a wide range of activities such as: sociolinguistics, psycholinguistics, philosophical linguistics, and computational linguistics. It is in fact an investigation of how people use their language to communicate with each other and how they construct linguistic messages for the sake of interpreting them (ibid).

Discourse analysis, in this regard, is an interdisciplinary approach to the study of language use by language users that includes syntactic, semantic, sociological, psychological, true-value, and linguistic computational processing elements. Thornborrow and Wareing (1998: 212) support this by correctly pointing out that the enormous impact of discourse analysis on their social contexts has broadened the scope of stylistic analysis and resulted in new research avenues. Hence, it holds a firm position in modern stylistic studies, giving birth today to *Discourse Stylistics* (henceforth DS).

Naciscione (2010: 16) states that DS has emerged as an innovative discipline in its own right. It demonstrates how discourse is constructed and what it conveys in order to launch stylistic interpretation and evaluation of a text (ibid). Cohesion analysis (see Halliday and Hasan, 1976: Ch. 8) is essential in discourse stylistics as it uncovers semantic and aesthetical links. Since much research in the 1960s and 1970s tended to completely disregard stylistic features of language, therefore this approach is especially useful (Naciscione, 2010: 16). As a result, the term DS is now commonly used to refer to the practice of analyzing literary texts using DA. To this end, the interpretation of semantic and stylistic relationships in text is then handled by DS (see Carter and Simpson, 1989: 11; Carter and McCarthy, 1995: 135; Carter, 1997: 5).

2.2.3.3 Feminist Stylistics

In her preface, Mills (1995) has firstly introduced the term *Feminist Stylistics* to describe not only sexism in a text, but also to examine "the way that point of view, agency, metaphor, or transitivity are unexpectedly closely related to matters of gender, to discover whether women's writing practices can be described, and so on" (ibid: 1). Feminist stylistics or *political stylistics* has its origins in feminist

criticism theories and practices that originated in the United States and France (Ghazala, 2011: 22). Bradford (1997: 13) emphasizes this type of stylistics describing it as having sociocultural-political, male-biased intentions, which control not only the stylistic habits, but also the methods of interpretation.

However, Language has been provocatively politicized as a result of the emergence and ongoing practice of feminist stylistic analyses (Montoro, 2014: 350). Its linguistic/stylistic frameworks are described by means of maleness' political dominance and superiority over femaleness, on the one hand, and females' indifference, inferiority, humility, and submissiveness, on the other. Men are always portrayed as active and positive, while women are portrayed as passive and negative (Ghazala, 2011: 23). From this, it goes without saying that *feminist stylistics* opens up new avenues of analysis. This is a critical method of interpreting various types of discourse within a sociopolitical context.

2.2.3.4 Narrative Stylistics

Narrative Stylistics is a fourth stylistic trend that has recently been developed and improved in modern stylistics. It is worthwhile nothing, that the major focus of stylistics on literary texts has shifted over time. This type of stylistics, for example, seeks more intricate models of description, analysis, and explanation of narrative fiction. This can be achieved by matching up styles of language to a connected series of events, narrative discourse tends to suggest some sort of recapitulating experience (Simpson, 2004: 18).

According to Ghazala (2011: 24), narrative stylistics has a dividing line occurs between two major thresholds of narrative analysis: *structure* and *comprehension*. A foremost distinction is also established between

two fundamental elements of narrative: *plot* and (narrative) *discourse*. The plot of a narrative refers to the intangible storyline, i.e. the sequential order of events.

Narrative discourse, on the other hand, refers to the method or means by which the plot is told. Narrative discourse is distinguished through the use of stylistic devices such as flashback, prevision, and repetition, which disrupt the logical flow of the plot's chronology. This means that narrative discourse seems to be started to realize text, the concreted piece of language spoken by a storyteller in a particular interactive context (ibid).

In this sense, Shen (2014: 191) states that stylistics and narratology have co-evolved in the study of narrative fiction for the last half-century or so. Stylistics clearly distinguishes between content and style; whereas narratology separates between story and discourse. Ostensibly, the two distinctions appear to be strongly associated, with 'style' responding to how content is presented and 'discourse' trying to indicate how the story is told (ibid).

Admittedly, stylisticians, analysts, and critics have focused the majority of their attention on narrative. In general, the rationale for narrative stylistics is social, historical, and cultural. This is the point at which *narrative* and *discourse stylistics* (see 2.2.3.2) make contact. The primary goal of narrative stylistics, extracted from the facts mentioned above, is to 'conceptualize' narrative discourse and structure via language. So it is reactionary and experiential in its most current innovations and breakthroughs, where it intersects with *cognitive stylistics*, which is the spot in order presently.

2.2.3.5 Cognitive Stylistics

Cognitive Stylistics (henceforth CS) or **mind stylistics** is a new, massively important, and upgraded growth, possibly the most recent, in modern stylistics (see Ghazala, 2011: 25). According to Boase-Beier (2006: 10), cognitive stylistics considers context to be a cognitive entity that involves a consideration of sociocultural factors. Saying a statement as simple as "environment shapes the brain", may be true of all experiences (Phillips, 2005). Meaning that context is viewed as a *cognitive entity* in CS, involving various knowledge about institutions, text-genre sociological roles, as well as (time and place) settings. It is based on the interaction of the individual, his/her cultural, and/or universal aspects (Semino, 1997: 8).

However, mind stylistics is most productively examined in texts where the variety of potential structures or cognitive habits make a significant contribution to create certain interpretations of what humans read (Hoover, 2016: 327). Within the same ground, the process of inferring character from text is influenced by cognitive frameworks and inferential structures that people, who are engaged with reading, have already created (Culpeper, 2001: 10). CS does not so much end up replacing other existing methods of analysis as it shifts the emphasis away from textual and analytical models toward cognitive/conceptual models (Boase-Beier, 2006: 12). Rather, these models explain the connections between the mind and the way people process the text in reading.

Needless to say, it considers meaning as if it is constructed by human minds rather than autonomous from thought (ibid). Put simply, it has combined pragmatic consideration with context consideration as a cognitively relevant dimension (ibid: 16-19).

Moreover, MacKenzie (2002: 6) views language as a combination of both a common background/ knowledge and simultaneously a reflection of a speaker's mind. This is due to the dynamicity of language inherited in every speaker's mind (Vandepitte et al. 2018: 360). According to Boase-Beier (2006: 75), recent contributions of cognitive stylistics explores the way mind style works (i.e., mind acts as a mediator between both the world people live in and the text they interact with when reading). In this regard, Iser (1978: 34) sees mind style in the text as kind of a textual information triggering the presence of such, using Fowler's (1977: 33) term, an 'implied reader' (i.e., the reader's own perspective).

As for the reason, it might go to what Cook (1994: 4) correctly states in that: literary textual discourse does have an effect on minds, stimulating or modifying our mental views of the world. A text is, therefore, thought to be organized into previously existing conceptual frameworks that people who read have constructed via a combination of innate and adaptive immunity of knowledge (Verdonk, 1999: 296).

Stockwell (2002: 76) further describes the cognitive position on the issue that the reader is endorsed as a result of changes happened to occur in deictic position mirrored in the text. As a result, the textual discourse is mentally rich representations triggered by the text and beholden to the various interpretations of the readers (Nuttall, 2018: 55).

To sum up, CS is indeed a unique way of analysing and interpreting discourse, together with literary discourse. It seems to be using the mind as the cornerstone for whichever stylistic proposed methodology in hand. CS holds a detailed account for how readers recall on their knowledge stores and how they can draw abstract exchanges

among those stores. Subsequently, an alternative technique, e.g., *Schematic Knowledge Deviation* (SKD) acts as a conceptual tracking, an activity and model derived from schema cognitive theory, would be evolved. It has been created by stylisticians to portray a watershed moment in cognitive stylistics. This indicates that such a use, like that of the schema framework, marks a significant switch in stylistics.

2.3 Stylistics as an ALPL

With so much ink spilled on stylistics as an Advanced Level of Practicing Linguistics (ALPL), it is critical to address a specific question here: whether stylistics has a firm place within linguistics. Is this considered advanced level of practicing linguistics or not?

Since stylistics explores the way texts are constructed from, both spoken and written, as well as literary and non-literary texts (see Zyngier and Watson, 2006: xiv; Jeffries and McIntyre, 2010: 4; and Lambrou, 2016: 96), it appears that texts are associated to linguistic performance (Zamojska-Hutchins, 1986: 13; and Nivre, 2006: 19). Using a specific language in a specific text, of course, reveals definite language features in use, such as facets of the situations in which they have been used, turn-taking constructions, narrative constructions, fundamentals of verbal exchange in a given conversation, background knowledge required in recognizing the texts, and proof of identity of what and who should be described in extensive periods of verbal and nonverbal communication (Johnston and Schembri, 2007: 253).

However, Alderson and Short (1989: 72) argue that stylistics is meant to help ascertain interpretation through all the investigation of what a text holds, besides characterizing the language techniques an author has been using, as well as the actual impact of those devices. Such an

examination is pretty much exclusively text-based and also has a tendency to regard texts as constituting layers of meaning (ibid). In this instance, stylistics is concerned with "components of language variability" (Fishman et al., 1994: 231). It is concerned with describing and understanding the variation of language features in meaningful communicative use (Rubio, 2011: 1043). The above demonstrates the fact that stylistics only interacts with realistic text samples (Povolna, 2005: 67). These samples cover topics such as public affairs, authoritative style, natural science prose style, as well as the linguistic of stylized communication and conversation (ibid).

Furthermore, the theme of stylistics is *style*, whereas the theme of linguistic theory is *language*. The former, the term style, by which stylistics is based on, has multiple meanings in linguistics (ABioye and Ajiboye, 2014: 118). This is supported by Leech and Short (2007: 9), when they state that style is linked to how a language is being used in a specific context. They (ibid) go on to say that the word style is chosen from an overall "linguistic repertoire".

Similarly, Lawal (1997:6, cited in ABioye and Ajiboye, 2014: 118) regards *style* as a specific system of language that is specializing in specific options available of turns of phrase, sentence fragments, or words, and even the linguistic components in relation to the sociolinguistic context of the relevant literary text. In this manner, Burns (2006: 17) identifies style as the net effect generated mostly by the direction of how words are being used in certain contexts. As for the latter case, linguistics is obviously described as the science of language or "the scientific study of language" (Lyons,1981: 37; Alhaj, 2015: 15).

So, what is style exactly? And what, after all, is linguistics?

Both cooperate with much the same area of study, that is 'language,' but from two different perspectives: style, on the one hand, is interested in studying how a language is being used (Leech and Short, 2007: 9); linguistics, on the other hand, as a general discipline, is willing to take part in empirically exploring the language as a whole (see Lodge et al., 1997: 1). In this case, humans all seem to be able to grasp the concept of linguistic style, and most of them might think firstly of language in literary style (Coupland, 2007: 2).

Besides that, stylistic variability relates to an individual speaker's intermediate step between, for example, official and casual fashions of speech, frequently trying to reflect various degrees of interest to speech caused by changes in the subject matter (topic), setting, and audience (Schilling-Estes 2002, cited in Pfau et al., 2012:789). Jeffries and McIntyre (2010: 3), in this scenario, cover the full core idea when they say:

> Stylistics has a firm place within linguistics, providing theories of language and interpretation which complement context-free theories generated within other areas of language study.

2.4 The Need for Stylistics in Text Analysis

Stylistics and linguistics are inextricably linked since the broad term linguistics emerges theories that aid in the mechanisms of linguistic interpretation (Simpson, 2004: 2). According to Hall (2008: 31), stylistics scrutinizes texts in a logical fashion in which words and expressions are necessarily linked to one another, even though it is recognized that a fairly clearer sense of what and how those characteristics imply and to whom inevitably exceeds a naked and frozen text-based account (ibid). However, among stylistic critiques, the

assumption that stylistics is involved with literary works rather than linguistics is widely held. Simpson (2004: 3), for instance, validates this claim by stressing the importance of literary stylistics throughout language studies. Various stylisticians believe that stylistics contracts with literary or non-literary texts because stylistics crops up numerous forms of discourse, including such regular conversation, news reporting, marketing, and even contemporary music (ibid).

Notwithstanding, stylistics, specifically contemporary stylistics, illustrates the centralized situation of language and literature (Lambrou and Stockwell, 2007: 1). Thereby, Burke (2014: 1) states that stylistics or literary/poetic stylistics is preoccupied with critically analysing texts, primarily narrative texts. Alternatively, Jeffries and McIntyre (2010: 8) allege that stylistics can stand to gain from all other branches, such as pragmatics and discourse analysis, and that this might lead to a specific measurement of the ultimate duplicitous uses of language. In this regard, stylistics provides an explanation as far as how texts cognize meaning, how language users build this meaning, and why those users react to texts in the ways as they do (McIntyre and Jeffries, 2017: 155). They go on to assume that the object of stylistic analysis has often been literature, however it is not restricted to literary works as the linguistic preferences of language users in all language use (i.e., written or spoken) would have profound implications (ibid).

As a matter of fact, the scriptural interpretation vitality of stylistics can certainly assist linguists recognize extra gravely the unique aspects whereby a discourse styling can significantly affect readers' adherence in everyday attitudes (Jeffries and McIntyre, 2010: 8). As a result, the primacy of stylistics in text analysis is noteworthy and beneficial, because the overarching existence is ruminated via language, and this

language compositionally and informatively is well-described in stylistic forms (ibid).

2.5 Stylistics and Style Aspects

Stylistics is associated with a number of aspects related to the term style. These aspects can be categorised into three challenges that reflect the most debatable linguistic definitions of such a term (see Hussein, 2014). He (ibid: 2) outlines three basic issues on style in his book Issues in Literary Stylistics, as shown below:

1. Style as *choice*.
2. Style as *recurrence*.
3. Style as *deviation* from a given set of norms.

Style as *choice*, on the one hand, denotes the storage location or textual system into which the authors/ writers created their stylistic choices (ibid). On the other hand, style as a *deviation* from a given norm is particularly fitting for splitting one text from others (ibid: 2-3). As for investigating style as *recurrence*, it uncovers the co-occurrences of particular linguistic functionalities including lexical, structural, and so on. It aids researchers in reaching the destination of a specific conclusion, debating the essence of an author's language (ibid: 3).

In light of the foregoing, the researcher hopefully will try to lay out the main points for these three key issues.

2.5.1 Style as Choice

Laying more emphasis on the so-called *style*, Abrams and Harpham (2015: 383) define style as the way of "linguistic expression in prose or verse; it is 'how' speakers or writers say whatever it is that they say". Ghazala (2011: 41) defines style as a *choice*: it is a decision made by a writer well within the boundary lines and resources of language or word usage. This happens in the maximum wide range of choices in the phonological, syntactic, semantic, as well as pragmatic devices (ibid).
In a broad sense, the term *style* refers to a manner in which language would be used in a situational setting, by a given individual, for a special reason, and etc. (Leech and Short, 2007: 9).

Using the *signifier* and *signified* terms, this results in a distinction between *langue* and *parole*, where *langue* refers to the code or set of rules widely accepted by users of the language; *parole* makes a reference to the specific applications of these rules under a specific social event (ibid). In their classification of style, Nida and Taber (1969) identify the shaped *alternatives* (i.e., choices) that play fatal roles in determining an author's style. Style in this context refers to a stereotypical decision being made at various linguistic thresholds, including phonological, lexical, syntactic, and pragmatic (Traugott and Pratt, 1980: 409).

Thus, one method of leveraging the store of language system to discover text- based literal depiction is to examine specific outfit choices. Style determinations are hence driven, even if unintentionally, and all these decisions have a significant effect on how text messages are organized and inferred (see Simpson, 2004: 22).

As a result, each author creates his or her own steps from the framework of linguistic use. Notwithstanding, it is postulated that these selections are powered up by specific artistic and aesthetic attitudes. This appears to mean that only certain qualities, that make a text more productive as a writing system. Somewhat more, these qualities are contributed to the writer's connection with his/her reader (Kirkman, 2005: 1).

2.5.2 Style as Recurrence

Recurrences in a work of literature or language exist primarily in indispensable shades of meaning and messages. Shifts in one form, e.g., can indicate a wide range of information (Niditch, 2017: 29). On the term style, various implications can be eventually realized. One of them is the perspective of style as a component of frequency bands (Jones, 2012: 172). Throughout his definition of the term "style," Bernard Bloch (cited in Jones, 2012: 172) endorses such an implication, simply saying:
the message expressed by the summary statistics and transitional likelihood of occurrence of its language items, particularly when these items differ from the very same characteristics mostly in overall language.

So, *what is the extraordinary means of making a style in a text document stand out?* According to Leech and Short (2007: 35), one can detect what is *unique* about a particular style in a text document by identifying the predefined frequency bands of the linguistic items contained in the text, and then comparing the statistical data of certain numbers affiliated to such frequencies to the regular frequencies of the linguistic characteristics.

Besides, two different terms must be identified: *parallelism* and *simple repetition*. At a first glance, it appears to be "simple word or phrase repetition" (Kolker et al., 1993: 16). Upon a closer inspection, a specific idea is stipulated, then repeated; moreover, *repetition* is equivalent to the first glance. As a result, *parallelism* aids researchers sustain thought stability whilst still donating to a gratifying "poetic meter and rhythm" (ibid).

2.5.3 Style as Deviation

Designating *deviation* in the context of studying style, Enkvist (1985: 40) states that a concept like this is extremely important in the study of style because texts can be aesthetically discriminatory whenever a language deviates from several expected standards. However, standards would have been of two sorts: relative (i.e., norms related to a specific text corpus) or absolute (i.e., norms related to the language as a whole) (ibid). In this context, deviation corresponds to a departure from the social conventions or regular norms of language as a whole, or from the standards built in literary composition, or even from the standards primarily focused in a textual content (Aquilina, 2014: 13). It covers a wide variety of accepted norms observed through the grammatical structures that people use (Ellis, 1974: 160).

As a result, the style may deviate from whatever is reasonably expected (ibid). Barthes (1971b, cited in Noth, 1995: 344) identified different semiotic dichotomies to ascertain the premise of style: "content vs. form (style as elocution, ornament, or "dress," thus: form) and code vs. message (style as a deviation of the message from the coded norm)" (ibid). As an example, Riffaterre (cited in Wetherill, 1974: 186) defines

style as "a constantly repeated set of deviations from the norm" in literary work.

But *why is this the case? Why is there even a notion of deviation?* It appears that deviation exists to garner attention and surprise (Leech, 1969: 56-57). This might go behind the fact that language can be depicted persuasively as a "deviation from a given expectation" that individuals have (Renkema, 2004: 148). Different forms of deviation can be classified into three scales: realization (the scale of phonology and graphology), lexical or grammatical scale, and semantic scale (Leech, 1969: 57). Nonetheless, the parts of deviation are determinate deviation and statistical deviation (Enkvist, 1985: 40). Whereas the first part is associated with what is authorised in the language system and what frequently found in texts (ibid), the other one is involved within the textual dividing lines that take place between the standard and the domain on its own (ibid).

Lastly but not least, Leech (2013: 63) identifies another type of deviation referred to as internal deviation, where it originally stands out as a point of climax. This type is shown when some language displays, within a single text document, stand out against people's mental background (Leech and Short, 2007: 44).

2.6 Cognitive Linguistics and Cognitive Stylistics

Cognitive linguistics (henceforth CL) is one way of looking at the world in attempt to comprehend complicated stuff via smaller substances (Pavlenko, 2017: 51). CL has been assigned separate names such as *scripts*, *schemata*, *frames*, *scenarios* and *worlds* (see Chaves and Putnam, 2020: 204). According to schema theorists, humans find a way to deal with situations through correlating them to socially constructed

occurrences affiliated with much more appropriate ways previously stored in memory (Gavins, 2007: 3). Consider the following restaurant script, which includes instructions on how to handle things in such a scenario:

> Waiter: may I take your order, sir?
> Customer: Hmm, yes I need something to drink first, orange juice please.
> Waiter: anything else?
> Customer: fried potatoes.
> Waiter: sorry sir, what?
> Customer: oh you call it French fries, sorry. (ibid)

The two interlocutors above appear to be from two different cultures, as they are unable to fully comprehend each other and have to redo or clarify what is actually needed. When the waiter does not really understand, he asks the customer to restate his request and goes through some cognitive processes before realizing that they call it "French fries" rather than 'fried potatoes'. This refers to the idea that humans create mental models, which are always based on their daily experiences (ibid). In other words, humans bear a striking resemblance towards the actual situations they portray and are frequently stated in cognitive psychology. Schemata or mental processes, hence, enable the reader to depict all of these facets of his or her daily life in the same way that they do in the actual world (ibid).

Linguists, however, have discussed mental representations of human experience, and perhaps the most important and powerful flexibility, of cognitive science into linguistic theory, makes it clear that human data (i.e., knowledge) is packaged around the structures called "Idealized cognitive models ICMs" (see Gavins, 2007: 5). It is the knowledge

structure whereby the audience negotiates his way through his/her own life by equating reality (Bybee and McClelland, 2005: 382). The assumption that people's interaction with the world around them is mediated by informational structures occurred in the mind. From this, one can infer that when people talk, listen, and read, they in fact generate mental images and/or representations of the same language (Geeraerts and Cuyckens, 2007: 4-5).

To this end, the detailed framework and information of each conceptual model will be determined by the language being used. Conceptual representation is important in the process of communication. Individuals, whatsoever, recognize each other via their cognitive structures, which would be premised on the language they use, their mental representation, their actual knowledge, and their prior experience (see Werth, 1999: 15; Sinha, 2007: 1280).

Furthermore, the development of stylistics presented in (Section 2.2.3) runs from a mid-20th century. It is concerned with the linguistic forms alone to contemporary stylisticians'. Later, it is being held within a much broader analysis of linguistic forms with reference to *context* and *the ideological*, *rhetorical*, and/or *literary effects* of those forms on the readers.

Following their challenging idea, Ungerer and Schmid (1996: x) state that all 'linguistics' does seem to be 'cognitive' in the sense that the structures, rules, and semantic features, that produce language, are stored in people's memories. From this, it can be concluded that *cognitive stylistics* is the most recent advancement in providing a fully contextualized and reader-friendly account of textual meaning.

Staying within the same ground, works in this field have expanded rapidly over the last fifteen years, giving it an authentic and well-established identity of stylistic research (Browse, 2018: 18).

Pouring a great deal of ink on CS, much cognitive stylistic researches are thus inextricably linked to the rise of cognitive linguistics (Gavins and Steen, 2003: 3). It is therefore necessary to track the fundamental tenets of this theoretical framework in order to better comprehend the concepts that underpin CS. Following this tracking, CS is a type of reader-oriented textual study investigating both the independent and heteronomous attributes of literary works, viewing them as "two complementary focus points" in reading examination (Stockwell, 2002: 136). This suggests that since the 1960s, CS and its parent discipline, stylistics, have emerged from interdisciplinary contact occurred somehow between literary criticism and linguistics (Peplow et al. 2016: 31).

Consequently, they (ibid) go on to say that 'Cognitive Stylisticians' consider the language of a text to be vital in its effects using cognitive techniques to understand how human minds engage with that language.

Needless to say, CS represents a significant advancement in the 'readerly dimension' of stylistics (Carter and Stockwell, 2008: 298). As for its primary goal, CS analysis is not always about producing new interpretations of literary works. Rather, it is interested in investigating how and why specific texts produce specific interpretations or impacts for their readers (see Semino and Culpeper 2002: x).

Moreover, Language is viewed as an inevitable aspect of cognition, not a separate module in CL (Langacker, 2009: 628). This viewpoint makes it evident that people's linguistic mental capacities are profoundly

embodied; i.e., *language*, rather than being a closed system, tends to involve knowledge of the world that is incorporated with people's other mental capabilities (see Geeraerts, 2006: 5). One of the reasons users can learn a language, for example, has to do with their broader cognitive capacity to discover resemblances and correlations along a wide range of their everyday experiences. Digging deeply to find out the profound of such a process, this can be best described using the term schematisation – meaning that people "*schematise across instances to identify types*" (Italics are mine) (Browse, 2018: 19).

The same is true for language: the way people understand the language system with is founded on their daily encounters using meaningful utterances or sentences (see Tomasselo, 2000; Zeschel, 2008; Langacker, 2009). From this and on a daily basis, the researcher now is in a position to come across the conclusion that: people daily experience active and direct relationships between people and things. For example, we always use our hands to push doors, feet to kick balls, fingers to press buttons, and so on - this gives an indication that what we hear can be represented linguistically.

Reduplicating such lively interactions and what corresponds their linguistic structures, people always obtain a grammatical class of things (i.e., nouns) and a grammatical class of actions (i.e., verbs), besides their syntactic structures representing an *intangible situation*. This situation goes hand in hand with one thing which acts, in some way, on another (i.e., transitive clauses). Thus, the linguistic tools people use to reflect the world are the outcome of their embodied engagement with it. These tools are derived from people's life experience as living organisms moving around an objectively surrounding (e.g., existing environment) (see Lakoff, 1987; Ryan, 1998; Stockwell, 2002; Browse, 2018).

To summarize, having different viewpoints and perspectives on the two terms in question, CL and CS together are well suited to inspect texts because such approaches seek to understand the way readers experience the texts they read. Originally, *stylistics* was interested in one-direction reading. That would be: the reading of the text's values and culture as a whole in its own right (i.e., only from the writer's perspective).

This is no longer reliable in *contemporary stylistics*, particularly *cognitive stylistics*. The reader who reads literary works based on his or her mentality, culture, traditions, and ideology currently has the overwhelming advantage.

During reading, the reader's mind creates mental representations or cognitive structures based on prior knowledge, which are then reconfigured by interacting with the fresh information given in the text. Later, this information might be deviated from the expected norms, and hence there perhaps will be a *deviation in schemata*.

2.6.1 Mind Style and Cognitive Stylistic Relativity

Many issues have been witnessed in attempting to define 'Mind Style'. For example, Roger Fowler (1977, 1986, 1996) has coined the term *mind style* to describe how linguistic structures in a text (or part of it) can construct a distinctive world-view. Having a precise idea on mind style, it is a distinct way of experiencing and trying to make sense of the textual 'world' (Semino, 2002: 95). Using his own words on the term in hand, Fowler (1977: 73) makes it clear in the following:

> Cumulatively, consistent structural options, agreeing in cutting the presented world to one pattern or another, give rise to an impression of a world-view, what I shall call a "mind style".

Fowler (1986, 1996) goes on addressing the concept of *mind style* explicitly in his Linguistic Criticism. That is, it is regarded as *equivalent* to the patterns of "world view" and those of "point of view on the ideological plane":

> [Speaking of what he has called mind style, it is] the world-view of an author, or a narrator, or a character, constituted by the ideational structure of the text. From now on I shall prefer this term to the cumbersome "point of view on the ideological plane" […]: the notions are equivalent. (Fowler 1986: 150, 1996: 214)

Still, there is a sort of ambiguity in the issue of mind style. In this regard, Semino (2007: 169) makes it obvious that *mind style* refers to linguistic features in texts (style) or to the properties that people relate to specific (fictional) minds by trying to interpret linguistic features in texts. Having another point of view, Nuttall (2018: 19) states that *mind style* refers to both the linguistic features of the text and the fictional consciousness designed and built in the reader's mind, which Stockwell (2009) keeps referring to as 'texture'. The use of such a term (mind style) here reflects the fact that the merged experiential reliability of the reader's feelings is triggered by the patterns of the text on its own (Stockwell, 2010: 424). Making a clear-cut distinction between mind style and normal style is highly dependent on the reader's identification of these linguistic features to an individual mind (i.e., the author's mind) (see Leech and Short, 2007: 157; Nuttall, 2018: 19).

Discussions of mind style within this stylistic ground have made the argument that its relevance is effectively seen where foregrounded linguistic forms also indicate an unusual style or 'deviant' view of the world (Semino and Swindlehurst 1995: 145; McIntyre, 2006: 144; Hoover, 2016: 338).

Taking this a step further, Stockwell's (2009: 125) claim, that "only those standpoints considered as "non-normative and idiosyncratic are actually noticed in natural reading", makes a significant contribution to a narrow definition of mind as "the presentation of a highly deviant or at least very unusual worldview".

According to this viewpoint, mind style applications reveal a tendency to focus on illustrations at the 'unorthodox' end of Leech and Short's cline, as well as the mind styles of characters who are more clearly apparent as 'odd' (see Leech and Short, 2007: 162). Mind style, in this regard, appears to be connected to narratives in which a narrator and/or characters exhibit certain unusual "psychological traits" (see Montoro, 2010: 31). These traits are seemingly represented by certain identifiable cognitive scenarios, such as autism, schizophrenia and depression (Bockting, 1995; Semino and Swindlehurst, 1996; Semino, 2011, 2014; Demjen, 2015). Such traits may be veered away or deviated from the expected norms, and this deviation could be both conceptual and/or linguistic in the recognition of a person's mind style reflected via certain linguistic cues that are peculiar (see Fowler,1977: 76).

When it comes to normality vs. deviation, Stockwell (2009: 124) designs a spectrum of viewpoints running the gamut from naturalized, socially shared ideological viewpoints that appear 'normal' to distinctive, 'deviant' viewpoints that linguists attribute to mind style.

Besides, Semino (2014a: 154) suggests that a few key examples from a text may be enough to generate a mind style. Using her own words, she (ibid) clearly demonstrates how the task is done:

> When a particular (linguistic) behavior is foregrounded through 'deviation' from default or conventional expectations, a few instances of that behavior may be sufficient to attribute a (mental) trait to a character, even though that character does not exhibit that behavior consistently.

As a conclusion, *mind style* demonstrates how a fictional world is comprehended. It correlates directly to the linguistic construction of a specific conceptual framework of a textual world. Hence, it is used by combining linguistic/stylistic pattern analysis with perceptual and cognitive theories, such as Schema Theory.

2.6.2 Image-Schematic Understanding

The transdisciplinary track record of image schema analysis hints at one of the significant obstacles to ongoing studies, namely the lack of agreed-upon terminology. The term in hand is loosely defined, with explanations varying across scientific areas, individual researchers, and methodologies.

Image schemata are now investigated in various disciplines, including *Developmental Psychology* (e.g., Mandler, 1992; Watters, 1996), *Cognitive Linguistics* (e.g., Hampe and Grady, 2005; Tseng, 2007), *Neuroscience* (e.g., Rohrer, 2005), and *Formal Knowledge Recognition* (FKR) and *Artificial Intelligence* (AI) (e.g., Bennett and Cialone, 2014; Frank and Raubal, 1999; Kuhn, 2007; St. Amant et al. 2006).

Disciplines have different foci and scientific backgrounds. As a result, it is not surprising that the terminology for image schemata has been left open to interpretation. Another source of this confusion is the debatable connection between socio-cultural facets and the neurobiology of human functioning (see Hampe, 2005).

Attempting to define what image schema is, Johnson (1987: 46), determines it as a regularly occurring, dynamic pattern of cognitive interactions and motor programs that provides coherence to personal observation (i.e., experience). Oakley (2010, 215), takes another path to define an image schema as "… a condensed re-description of perceptual experience for the purpose of mapping spatial structure onto conceptual structure". Hampe (2005: 7), in a clearer sense, believes that image schemata are pre-conceptual frameworks that are straightforwardly meaningful ("experiential"/" embodied") and are deeply embedded in human bodily movements via space, perceptual interrelations, and possibilities of manipulating objects.

Taking into consideration the idea that the source of thought is indeed a schema, Lakoff (1987: 57) refers to the kinds of experiences that motivate schema as "container image schema". Explaining how a container image may do the task, a clear example can be mentioned in this regard: readers are contained in larger things, such as buildings. Interior, boundary, and exterior are the elements of the container image schema. Everything is either within or without the container. Put simply, the seat is located in the apartment, for example, if it is in the kitchen and the kitchen is also in the apartment.

This clearly illustrates what Lakoff (ibid) refers to as the source-path-goal schema. It is in fact stimulated by bodily experience that whenever someone moves from (town A) to (town C), s/he should then pass by (town B). Source, path, goal (departure point), and direction are among those three elements mentioned above.

Turner (1991: 181) asserts that because people interact with their surroundings through a variety of modalities at the same time, they must

be able to preserve image-schematic information across all of those modalities. With a better understanding of the term at hand, he (ibid) goes on to explain how image-schematic information works:

> Suppose we want to catch a ball, or a cup falling from a shelf. What we see as a dynamic path in visual space had better correspond to a dynamic path in tactile space [and this is what image-schematic information does]; otherwise we will place our hands at the wrong place, and fail to catch the object.

To this end, Hedblom (2020: 44) reaches the conclusion that *image schemata* can be mixed structurally to create extra complicated image-schematic concepts. Take the idiom 'to hit the wall', as an example. In most cases, this does not imply a physical crash or collision with a wall. Rather, it gives the indication that a mental breakdown is carried on by long-term pressure. Thus, such an idiom is managed to capture BLOCKAGE's image schema. Therefore, it is evident that BLOCKAGE is a serial mixture of several image schemata rather than an atomic image schema. As a result, two OBJECTS, one SOURCE PATH GOAL, and at least one-time point at which the two objects come into CONTACT, are embedded within the idiom. Integrating the serial combination to the idiom, researchers can see the way a tangible PATH is charted to the time regarding the operations that accompany the "crash" (Hedblom, 2020: 44).

2.6.3 Schematic Knowledge Deviation

Pouring a great deal of ink on the core idea of this dissertation, the researcher must first pinpoint what schema is, after which he will be in a prime place to get acquainted with what is meant by schematic knowledge deviation (hereinafter SKD). Schema (*plural* schemata or schemata), as a

concept, was first initiated by the British Psychologist Sir. Frederic Bartlett in 1932, and was established by the American psychologist Richard Anderson in 1990, along with several other authors (Rumelhart, 1980: 33). Rumelhart (ibid: 34), in this regard, defines schemata as "building blocks of cognition" and "skeleton around which the situation is expounded" (ibid: 37). According to Semino (1995: 3), it was Bartlett who firstly used the word *schema* in the context of "a prior knowledge", and the one who characterized it as a basic organizational unit of background experience. Within the same ground, McIntyre (2006: 48) claims that humans' comprehension of specific events, activities, and scenarios is characterized by the amount of prior knowledge they have in mind. This is known as schematic knowledge, and within it there is a schema, which simply refers to a complex unit of that knowledge relevant to a specific person, event, activity, or situation (ibid).

Defining it as an "abstract general representation", Taylor (2018: 15) portrays schema as an instance subsequently filled by certain details to come up with well-formed information. While Schema can be identified as "conventional knowledge structure that exists in our memory" (Yule, 2010: 150), a clear example can be mentioned in this regard. If you lift up your face now and tell anyone who sits beside you about any school in your area, you, in this case, do not have to mention certain things like: there is a class in that school, students, teachers, chairs, boards, desks, etc. This is because all these pieces of information are already existed in the background knowledge shared between you and the one you are talking to.

From this example, it is obvious that schemata are conceptual frameworks that represent knowledge, including such concepts as objects, events, situations, and actions, all humans have in mind. These schemata

can then be used not to only recognize something, but also to predict events of the surroundings. Pieces of information that do not fit into human mental schema may not be fully grasped. This is why readers struggle to understand a text on a subject they are unfamiliar with; hence a schematic challenge may occur.

Speaking of this challenge, Tavakoli (2013: 303) asserts that whenever readers encounters the word *restaurant*, for example, they gain access to their schematic knowledge (which may include waiters/waitresses, meals, menus, a bill, a chef, glasses, napkins, and so on). Individuals with such schematic knowledge can generate a richer context than a writer can. That is, it allows readers to expect events and ideas that may take place later in the text (ibid).

However, this expectation is subject to deviation: (i.e., readers' "desired knowledge schema" may differ from their "current knowledge schema") (Gong et al. 2017: 134).

According to Culpeper (2014: 132), this deviation is referred to as "unexpected irregularity (breaking of norms)". Trying to deal with this deviation and its relevance to the study and analysis of textual interpretation, readers engage with the text they read by using their expectations based on their general knowledge of world schemata (ibid). As a result, another term of such a deviation should be mentioned in this case. G. Cook (1990, 1994) uses the term *Discourse Deviation* to identify the disturbance of readers' established schematic knowledge throughout their engagement with textual language, especially literary texts.

In her article, *A Cognitive Stylistic Approach to Mind Style*, Semino (2002) schematically examines the eccentric character, Alekos, in

Louis de Bernieres' Captain Corelli's Mandolin as a clear example of how the traits (e.g., linguistic cues) of the text work and can be deviated from the expected norms readers may reach as interpretations.

Since the current study deals with SKD and it does indeed has a cognitive relativity with the so-called *Mind Style* (see 2.7.1). The researcher has decided to return to the novel that Semino (2002) has analyzed to determine what linguistic cues Alekos used to be later recognized within the wheel of SKD.

Handling such a novel as an example, readers first meet Alekos, in Chapter 46, halfway into the novel. He is a shepherd who has spent much time on Mount Aenos looking after his goats without any contact with people.

During WWII, he was working on the mount and saw distant searchlights and flashes every night. Unexpectedly, a soldier with a parachute lands on the Mount, holding a radio and some weapons, as well as hand grenades. Readers who dig deeper into the novel will notice a series of rather humorous misunderstandings, such as:

> The parachute, regarding our friendly character Alekos, is a mushroom, the soldier is an angel, the radio is a metal box or engine, and the grenades are iron pine cones.

Focusing on the text's linguistic cues or "headers," such as parachute, soldier, radio, etc., will prompt readers to "activate certain schemata" (Giovanelli and Mason, 2018: 72). This is due to the fact that many headers are extremely vague. They, in turn, suggest lots of possible schemata that readers might need to activate in order to make sense of the scene (ibid). Back to Alekos, he is deficient in certain schemata (e.g., for parachutes, radio communication and modern weaponry). Failures or

errors in comprehension can result from a lack of certain schemata relevant to the processing of a specific stimulus.

More precisely, a lack of proper schemata or conceptual frameworks leads to 'deviations' when readers attempt to achieve a desired interpretation of the text they read. More pertinently, Alekos' individual way (mind style) of dealing with the natural surroundings is all about attempting to make sense of uncertain objects that he is unexpectedly presented with (see Semino, 2002).

This can be viewed as a cognitive habit that characterizes his mind style. Addressing the core idea of why Alekos has certain failures or SKD, it is due to some obvious aspects of the stranger's (the soldier's) appearance and behavior: the way the soldier floats down from the sky that humans, according to Alekos' prior knowledge, cannot do, plus the white clothes that soldier was dressed. This implies that Alekos' entire world view has been deviated as a result of what he has experienced about angels, perhaps from stories he has listened and photos he has already seen.

Rounding off this chapter, a good deal of information has been provided about what stylistics and cognitive stylistics, particularly, are. The next chapter is going to handle *SKD as a Cognitive Stylistic Marker* with its relevance to *Schema Theory* in detail.

2.7 Previous Related Studies

1. Study: Schema Theory and Text-worlds: A Cognitive Stylistic Analysis of Selected Literary Texts

   Author: Eman Adil Jaafar (2020)

   Focus: Examining literary language using Schema Theory and Text World Theory for interpretation of literary texts. Investigating the

interaction between "discourse world" and "text world" and how readers connect these worlds.

Link to This Study: This study aligns with the exploration of readers' cognitive processes, focusing on how readers' background knowledge interacts with textual cues and their interpretive connections.

2. Study: A Cognitive Stylistic Approach to Mind Style in the Memoir Man's Search for Meaning

   Authors: Bupha Sirinarang and Raksangob Wijitsopon (2021)

   Focus: Analyzing the mind style of a real-person narrator in a memoir using Text World and Schema theories. Investigating the textual construction of mind style and its interaction with readers' background knowledge.

   Link to This Study: The study contributes to our understanding of mind style and its textual representation, which aligns with the exploration of how readers' schematic knowledge influences their interpretation.

3. Study: Unlocking the Mental Space Image Through Cognitive Stylistics: Delineating the Namibian Autobiographical Texts

   Author: Lazarus Gawazah (2022)

   Focus: Evaluating autobiographical texts using cognitive stylistic theory. Analyzing how schemata like balance, link, and path contribute to readers' understanding of the autobiography's content.

   Link to This Study: The study's use of schemata theory to better comprehend autobiographical texts resonates with the exploration of how schematic specifications and mental frames contribute to readers' interpretations.

These related studies offer valuable insights and methodologies that can complement and enhance this study on SKD in literary

interpretation. They provide a broader context and connection to the academic discourse in the field of cognitive stylistics and literature.

However, the study under investigation sets itself apart from the studies mentioned above by its comprehensive exploration of SKD, making a notable impact on linguistics, cognitive stylistics, and literature. It stands out through its innovative methodology, which primarily focuses on investigating readers' schematic knowledge deviation by highlighting cognitive processes and readers' schemas. The study's core investigation revolves around how readers interpret literary texts, with a specific emphasis on their schematic deviations during interpretation. Utilizing advanced Cmap Tools, the study takes readers on a cognitive journey to uncover the construction of varying levels of detail within the interpretation process, thus revealing the inherent cognitive dimensions of reading comprehension. This study's unique rigor is showcased by its adoption of a quantitative approach using WordSmith Tools to analyze linguistic outcomes stemming from SKD. This involves calculating Type-Token Ratios (TTRs) for the opening lines of the first ten chapters of each novel. By seamlessly integrating schema theory and cognitive stylistics, the study's overarching goal is to offer empirically supported insights that significantly advance the understanding of schematic knowledge and its intricate interaction with the cognitive processes that underpin reading comprehension.

Chapter Three
Schematic Knowledge Deviation as a Cognitive Stylistic Marker

After providing a broad insight into the relationship that governs three key aspects: Stylistics, Cognitive Linguistics (CL) and Cognitive Stylistics (CS), it is time for this study to narrow its focus. This chapter covers the fundamentals of understanding how *Schema Theory* works and how *Schematic Knowledge Deviation* (SKD) is identified as a cognitive stylistic marker.

Despite the fact that the cognitive approach includes numerous layers with diverse viewpoints, such an approach has one common ground in an attempt to unify research outcomes in human cognitive processing, literary works, and art forms, take for example Jaen and Simon (2016: 1), they use a comprehensive term to hold all these layers and group them under the umbrella of "cognitive literary studies".

Such studies include an extensive mix of multidisciplinary explorations such as *Cognitive Poetics* (Tsur, 2008 and Freeman, 2000, 2005, 2020); *Cognitive Narratology* (Herman, 2003; Fludernik, 2009; Huhn et al., 2009; Sanford and Emmott, 2012); *Conceptual Metaphor Investigations* (Lakoff and Turner, 1989; Semino and Culpeper, 2002; and Stockwell, 2002; Gavins and Steen, 2003; Brone and Vandael, 2009); *Cognitive Archaeology* (Mithen, 1997); *Text World Theory* (Werth, 1995; Semino, 1997; Gavins, 2007), and *Cognitive Stylistics* (Semino and Culpeper, 2002; Burke, 2011).

All these different lines of independent inquiry may imply that the cognitive perspective is possibly a bit heterogeneous. This insufficiency

of homogeneity, however, seems to be attributable to an unavoidable set of differences in the sorts of questions highlighted in any of these layers, as well as differences in the methods through which one reveals the cognitive processes that take place in experiencing literary works (Tsur, 2008: 623).

Attempting to turn the focus on one specific area, the current study is concerned with one particular aspect of the cognitive approach implications, that is *Cognitive Stylistics*, such a field contains a number of additional research pathways. Examining a literary text from a cognitive stylistic perspective necessitates the use of theoretical frameworks from fields such as *cognitive psychology*, *artificial intelligence*, and *computing* (see Jefferies and McIntyre, 2010: 126).

Nonetheless, nearly every single cognitive stylistic analysis is assumed to concentrate on interpretation instead of experience. This is due to the fact the cognitive stylistic analysis combines a couple sort of consideration. One belongs to the linguistic choices and the way these choices are structured within the fabric of the text. As for the other, the mental processes and cognitive characterizations, activated by a reader to attain an interpretation of the same text, should also be taken into consideration (see Freeman, 2014: 313-15).

In other words, researchers are encouraged to examine not only the linguistic make-up of a literary piece, but also the cognitive make-up of that piece. Put it simply, the cognitive states and steps taken by the writer/author (text maker) in the creation of his literary language, as well as the cognitive states and processes employed by readers (text consumers) in shaping their interactions to the text maker's language (Tsur, 2008: 621). This type of experiential exploration might be very

beneficial in investigating why cognitive science analyses can make a contribution to the comprehensive examination and interpretation of literary works.

Speaking of literariness, it is as a result restructured only within sense of an extreme range of mental defaults. More precisely "*literariness is constituted when stylistic or narrative variations strikingly defamiliarize conventionally understood referents and prompt reinterpretive transformations of a conventional concept or feeling"* (Miall and Kuiken, 1999: 122) (italics in origin). From this, one can say that a literary work is one that gets its aesthetic/ stylistic effects via the interplay of its language expressions and the cognitive functions that these expressions are schematized there (in the reader's mind). A single description of a text linguistic fabric or cognitive make-up is insufficient to elevate it to literary status.

3.1 Schema Theory: History and Applications

The sort of questions highlighted in cognitive stylistics has its own ramifications on the areas of interest in this field. Following the lead provided by Jefferies and McIntyre (2010: 126-27), almost any cognitive stylistic analysis is supposed to focus on the nature of the cognitive functions a reader lights up to respond to various elements of a text. Not to mention the sort of schematic knowledge a reader demands to handle an appropriate interpretation, and the ways in which such knowledge packages are used, all go together to enact the framework people use to view the world around them (ibid).

Thus, *schema theory* is only one of several areas of research within the larger scope of cognitive stylistics and/or what is known as *Schema Poetics* (Stockwell, 2002). There may be misunderstandings about two

aspects of schema theory: its historical background and its copies or applications in various fields.

Tracing its historical background, it may be befuddled by the relevant disciplines that contribute significantly to the growth and development of the core principle of what schema is. The multidisciplinary nature of the schema theory of underlying assumptions detects the concept of *schema* within four basic fields of investigation: *Philosophy*, *Gestalt Psychology*, *Artificial intelligence*, and *Cognitive psychology*. Each of which had established its own robust and contextualized application of the term *schema* (see Buxton, 1985).

In philosophy, the concept of schema is ordinarily traced back to Kant's book Critique of Pure Reason (1787) and subsequently refined by Nietzsche (1870s) (Robson and Stockwell, 2005: 60). Taking firstly the philosophical framework into consideration, two terms: schema and map seem to be used interchangeably (Cook, 1995: 16).

Regardless of the fact that he himself ascribes the entire concept of schema to an earlier scholar named *Henry Head*, the British psychologist Barttlet (1932), in Gestalt Psychology (see Köhler, 1961: 1), is widely known as the father of *Schema Theory* in its modern version, (Cook, 1995: 16; Fleckenstein, 2003: 17). Bartlett was originally the first American linguist to use such a term as *schema*. It has been used in the sense of prior knowledge, and defined as a basic organizational structure of background knowledge (Semino, 1995: 3; Stöcker, 2013: 3).

Across the 1970s, artificial intelligence (AI) researchers attempted to create computerized frameworks that mimicked human text processing. Notwithstanding, the computational standpoint of language is a type of communication process that derives its efficiency from the nature of the

packaged knowledge (Winford, 1983: 13). As a result, recreating human linguistic intelligence by a machine necessitates not only language knowledge, but also world knowledge (Cook, 1995: 18). This second type of knowledge essentially allows computers to process texts in a human-like sense (ibid; Kumar et al., 2022: 208). The term *schema* is being used in the regard of artificial intelligence to refer to organized computational knowledge bases, that would in turn reveal an ordinary reader's schemata (Emmott et al., 2014: 269). Dealing with whether the term "*frame*" (Minsky, 1975), or *"script"* (Schank and Abelson, 1977), and/or "*scenario*" (Sanford and Garrod, 1981; 1998), these three terms, according to artificial intelligence researchers, can be used interchangeably with the term schema.

Nonetheless, such relative terms underline the key features of the schematic background/ prior knowledge: a frame, for example, deals with a knowledge that is stuffed in visual processing, a script is a sort of schema works hand in hand with a dynamic chain of events, and a scenario is another sort of schema primarily influenced by a situation-specific knowledge (Emmot et al., 2014: 269). This makes artificial intelligence has its own impact on how the concept of schema is treated by cognitive psychologists. It might be a fallacy to conceive this impact as unidirectional. This is due to two-way traffic: (1) Cognitive psychology explanations of the complexity of human cognition have been used by artificially intelligent researchers; (2) cognitive psychologists have utilized the valuable results of those AI researchers to propose an advanced digital simulation of human language intelligence (Field, 2006: 3; Taylor and Taylor: 2021: 454).

Regarding the mutual effect of artificial intelligence and cognitive psychology, the latter is identified as a critical flaw in schema theory.

This makes it work independently of what the proposed theoretical cognitive psychology employs (Semino, 1997: 123). This essential issue establishes the idea of schema as an appropriate bundle of prior experience (or "subjective experience" (Graziano, 2017: 2) a reader has to activate inside his mental store so that s/he would rather attain an adequate degree of understanding (ibid).

3.2 Schematic Knowledge and Reading as a Cognitive Process

Reading is a crucial tool in people's social and cognitive lives, allowing them to participate in the social, political, economic, and cultural realms. Reading may be defined by Hidalgo-Downing (2000: 9) as a process in which the reader's interpretation of the text is extended beyond what has been written, related to ideas mapped by the reader's past information, which leads him further to a peculiar comprehension of the text. This means that the text is not something that is ready, completed, or accomplished; it is rather a process that is fulfilled by the reader's engagement with the text (see Alfaki, 2014: 53).

In his article *Psycholinguistic perspectives on second language acquisition*, Hulstijn (2006: 701-2) states that reading is all about looking at one thing and seeing another. Reading, according to *schema theory*, is the collection and integration of cognitive structures. Each structure is necessarily an object, concept, or event, as well as a collection of qualities that is related to the other cognitive structures (i.e., the new information a reader gets might overlap with "preexisting frameworks") (see Williams, 2019: 215). Cognitively speaking, schemata are simply a mechanism through which a reader connects information obtained from his background experience and the information itself. This indicates that *memory* is a dynamic archive of human life experiences that are evident

as far as how people perceive events, generating mental schemata that store the knowledge received at all occasions (ibid: 207-8).

In their research of *schema theory and cognitive aspects of reading*, Rasakumaran and Patrick (2019: 27) mention a highly challenging idea about the way readers make a sense or give life to the text they read:

> [R]eading becomes a cognitive process that depends on the participation of the reader, who enters the scene with his previous knowledge and participates in the construction of meanings; process in which the text becomes the mediator of communication between the author and reader. The reader will always be the operator of the text, the one who, with his personal effort, performs the reading, makes the actual text gives life to him, since the author, no matter how he plans his text, can never predict the real impact he will have on the reader.

Supporting such an idea, the objective of reading is to deduce the writer's intended meaning. This implies that inferring does not imply that meaning is included inside the written text. Rather, it is predicated on the degree of what readers are capable of based on their prior knowledge, therefore they may provide somewhat diverse interpretations of a single text (Sadeghi, 2021: 16). Similarly, Johnston (1983: 9) asserts that reading is a process of inferring the author's intended meaning based on indications or "cues" offered by the author with reference to readers' prior knowledge.

Reading, however, has been explored from two separate angles: in terms of 'process' and of 'product'. Tackling the former, which has sparked the curiosity of psychologists, cognitive scientists, and psycholinguistics, it refers to what is going on in the brain during reading, i.e., a mental process (Dumrukcic, 2022: 95). This viewpoint places a strong focus on mental, cognitive, and metacognitive activities in reading (Myers, 1991: 258-9). As for the latter, reading is seen as the product of

"word recognition ability" (Ewing et al., 2022: 126) and concerned with the results or product of such a mental/ cognitive process, hence educators, second-language scholars, teachers, and testers are particularly interested in this area of reading (Sadeghi, 2021: 16). When it comes to which point of view is correct, it all relies on what a researcher is interested in.

Reading is largely considered as a process in the current study. It is interested in understanding how and why readers end up with particular deficits or deviations (i.e., schematic knowledge deviation) when they reach their final interpretations throughout reading.

Following up all what has been stated so far, schema theory argues that reading might well be formed by combining the bottom-up technique of decoding information drawn from letters, words, and structural fragments with the top-down method of applying schematic or prior world experience (Nafa, 2022: 12).

Forming a coherent sequence, an exclusive focus on cognition should be addressed here. This focus is best framed in terms of the underpinnings of the sole approach by providing a broadly accepted cognitive account of reading (see Koda, 2005; Grabe, 2009). Such an approach is known as the "Interactive Approach", which was developed by Rumelhart and Stanovich in (1977, 1980) respectively.

In a quick review of such an approach, many scholars, such as Eskey, 1986; Grabe, 1986, Carrell, 1988; 1991, 2009; Carrell, 1988; Ibrahim, 2008; Hedgcock and Ferris, 2009), have emerged up their views and contributed them towards illustrating how the integrative model plays a significant part in cognitive exploration, leading to instructional techniques that overlook the social nature of language use. Additionally,

such a model is based on the schema theory, which states that our previous information is structured in terms of cognitive structures (i.e., schemata), which contain all what a person knows about a certain topic (Ibrahim, 2022: 22).

With all what has been just stated so far, reading a text is considerably more than word recognition. Put it simply, both mental schemata of reasoning and previous knowledge of a reader constitute the required interpretations that the reader desires to access. Therefore, reading may well be defined as an interactive activity that needs the reader's cognitive efforts in addition to his/her linguistic processes. That is why the reader must construct reading schemes, for the sake of interpreting the new knowledge gained at each new reading.

3.3 Aesthetic Goals of Schematic Level Choice

Giving tips for effective text writing, the writer's aesthetic goal is founded on the base that what is written is a work of art examined carefully with a slowly increasing knowledge (Glaser et al., 1978: 502). Turning to the linguistic and, more properly, literary sense of the term in question, Simpson (2004: 50) notes that if one wishes to dig deeply into the ground of "literary-aesthetic purposes", s/he might consider the term 'foregrounding'. The latter implies that the goal of all art is to shift our focus to the artistry of things (ibid). Breaking objects' familiarity (i.e., defamiliarising things), researchers are driven to investigate what otherwise might fall under the type of unconscious, regular form of attention.

Linking such an idea to literary reading, Cook identifies *defamiliarisation* as literature 'schema-refreshing' feature, meaning that knowledge is organized in a person's mind and activated whenever that

person needs to recall (1994: 138). Schema-refreshing is an act through which customary ways of making sense of the world (i.e. using our own 'schemata') are interrupted and refreshed (Gregoriou, 2014: 88). Reacting to texts the same way is indeed a wrong claim. This is due to the fact that readers "do not all share the same exact schemata" (ibid).

However, schemata are built upon how people themselves experience the world around them. Hence their experience is surely limited by their specific languages, societies, ages, religions, and so forth.

This refers to the idea that texts frequently conform to other structured ones, and only when they breach or deviate schemata for readers and/or "stick out" (Leech, 1969: 57), then these "conflicting schemata" (Guido, 2018: 142) of the readers are likely to be considered *artistic* in their own right (Gregoriou, 2014: 88).

Picking up the right amount of depth or specificity, a given schema, within the framework of *literariness* (will be handled in Ch. 4), is determined solely by the text producer's creativity and aesthetic aims. The quantity of information evoked in a text is almost an aesthetic reaction of "the author's conscious or unconscious" decision (Hussein, 2019: 15). Such a decision is meant to be influenced mostly by the text producer's resourceful aims in addition to his/her aesthetic goals (ibid).

Therefore, each writer makes his/her own moves within the framework of language use. These moves, though, are thought to be activated by certain artistic and aesthetic purposes. Put it simply, certain aspects, that make a text more effective as a written language, are not those of clarity or correctness. Rather, they are contributory factors to the

writer-reader interaction (Hussein and Al-Sahlani, 2019: 35). This goes hand in hand with the level and/or choice of *specificity*.

In this respect, a dichotomy should be mentioned: *underspecification* vs. *overspecification*. Weather dealing with semantic "underspecification" or "overspecification" (Cruse, 1977: 163), they aesthetically create markedness effects. Such a sort of specification, in discourse, is extremely reliant on the specificity chosen (Steinvall, 2011: 222).

In a nutshell, Cruse (1977: 163-4), proposes that each classification has one level that is fundamentally neutral, and, unless context requires otherwise, the more the choice of further degrees of semantic specificity influences readers' interpretation, the newer features are introduced.

Using his own terminology, Cruse (ibid) has introduced two terms, 'deemphasis' and 'emphasis', to represent *underspecification* and *overspecification* respectively. Tackling the former, it is a de-emphasis of the aesthetic worth of the features that may be ignored or retrieved from the schematic context. As for the latter, it is an emphasis or even strengthening of the aesthetic purposes of the elements expressly addressed in the text (see Cruse, 1977: 163). Generally speaking, 'over-specification' occurs when a concept is overloaded with too many actual cues; whereas 'under-specification' is the omission of a fundamental aspect of an idea (Hyden, 2002: 10). Similarly, over-specification suggests hasty design choices; whereas under-specification implies that the text producers do not provide sufficient information, hence reducing the specifications utility (Roussev and Rousseva, 2006: 152).

Quoting a very interested idea about this dichotomy, Dor (2015: 70) states that every lexical item has a single, generic, functional, and

underspecified literal meaning that is fundamentally distinct from the rich *overspecified* cognitive structures to which it is attached. Considering it as a dynamic process, *interpretation* produces a range of multiple readings of that single lexical item guided by diverse rules and standards (ibid). Nevertheless, *underspecification* might, of course, complicate text interpretation, and it appears that authors utilize it only when the context gives adequate knowledge for readers to draw the proper interpretation. As far as *overspecification* is concerned, it can be held in two phases: it firstly serves the function of text *perspectivization*, later provides the function of text *representation* (see Dirven and Verspoor, 2004: 191, 198). As a result, the functional dichotomy mentioned previously is going to be discussed later in Chapter Five, and applied to the very nature of the literature by which Inferno belongs to.

3.4 Reading and Prior Knowledge of Reading

Relating the prior relativity of reading as a cognitive process to such a topic, all people, generally speaking, are impacted by words, activities, and gestures and they themselves try to comprehend words and phrases through literacy. How people read a specific book is influenced by certain factors, such as their experiences, social, political, economic, and cultural relationships as well as their everyday activities. Comprehending a word, one must first grasp the world (the context) that surrounds him. Then, using their previous data, readers would create a comprehensive interaction with the text, allowing them to assign its content with multiple interpretations.

However, background knowledge may be utilized to help in lifelong learning. This is done by understanding what is meant in written materials, which do not represent all what a writer wishes to express. Prior knowledge is considered as a larger scope that comprises, among

other pieces of information, linguistic, semantic, textual, sociolinguistic, pragmatic, and encyclopedic information (Schoonen, 2019: 513). All these pieces of information can be stored in the memory in which it is a continual record of human personal experiences that are evident in how people perceive scenarios, creating mental schemata that systematize the knowledge received at all occasions (Finley et al., 2018: 6).

Linking how readers grasp the text with what they have in mind, a strong interaction may occur among different schemata in the processes of understanding. This may go because the reader will be in a position of trying to fit the new information he gets into a generic schema that is constructed throughout its history (Chechile, 2021: 76). Reading a text, readers offer their personal interpretation of the world that is unique to them; thus, such a vision of the world would then actually enable confrontation or various combinations of thoughts next to the one stated explicitly by the writer. As for why, they (the writer and reader) both are placed within their own possible universes of interpretation (see Yellin, 2017: 106).

Reading guides the reader to browse in his olden days for knowledge relevant to the interpretation of the content (i.e., texts). It is an activity that provides clues or levels of detail and tends to suggest pathways (McMaster and Espin, 2017: 465). Despite being an interactive process that includes several levels of knowledge (verbal, textual, and world recognizing), reading does not make everything explicit.

The moment reading becomes a unique regarding information, it is going to be reliant on the formulation of an idea that will be one of the representations of a text in the information system. Leaving much space for interpretation, deviation and/or “artful deviation”, (Maes and

Schilperoord, 2008: 235), may happen to occur in reading. It may then lead to produce a misleading interpretation, and hence affects information retrieval (Wheeler and Indra, 1997: 4).

3.4.1 Reading Strategies

Having viewed that the process of reading is a cognitive activity, it involves that the reader is used to decode, search previously acquired knowledge in his memory, interpret, and, most importantly, draw certain lines based on the new information garnered from the text and how this information might be created in memory. Aside from the objectivity of reading, readers adopt specific *reading strategies*, which are procedures employed to address the text. Such strategies particularize the reading sense and emotion. Since reading involves the activation of cognitive competence and appropriate schemata, reader's active knowledge highly influences how the text will be received.

Skilled readers, however, create guesses about the text content and successfully integrate linguistic cues, world knowledge, and experience. Such readers establish expectations about what they will discover in reading and then confirming or rejecting these expectations (see Goodman, 1967; Smith, 1971; Wray, 1994: 55; Al-Fahid and Goodman, 2008: 165). Strategies of reading play an important part in text comprehension, and individuals, who have a sufficient amount of reading strategies, use them properly and effectively to grasp the text. As a result, the excellent reader is a strategic reader who understands how to handle the content. Rectifying apparent cognitive failures, Garner (1987: 50) characterizes reading strategies as usually purposeful and planful behaviors conducted by engaged readers. She (ibid) asserted that these tactics aid language learners in producing meaning and improving reading skills.

Being more curious about what reading tactics can do, they involve how well readers think about a reading assignment, what linguistic clues they explore, how they interpret what they have read, and what they do when they do not grasp the text (Farrell, 2001: 632). Developing mental representations founded somewhat on the writer's given and undefined meaning, the reader is strongly tied to his or her ability to comprehend the text. This is due to the fact that understanding a text varies substantially depending on the quantity of information that the reader has stored in his memory (e.g., his/her prior knowledge).

Supporting such an idea, understanding a text is not based completely on the text itself. Rather, readers should "construct a mental model that is analogous in structure to the events, situations or layouts described by the text" (McNamara et al., 1991: 493). In this sense, schemata comprise the structuring of world knowledge in human memory since they are interrelated segments that do not occur alone. Processing information as it later becomes knowledge, schemata establish an intense relationship between prior knowledge gained via living experiences and the information received. Such a process ultimately leads to an interpretation that differs from one reader to another due to the peculiarities happened to occur in each individual's history (Vanhoozer, 1998: 152; Wagonor, 2017: 116).

As a concluding word, readers must maintain their mental states straight and distinct in order to catch the writer's aesthetic goals. This makes them create a unified association with the text utilizing past knowledge to make it obvious in its meaningful sense. Reading, as a cognitive process, signifies where readers wish to go and how far they are capable of going. Thus, the more the readers' knowledge, the better their

understanding will be. The most common strategies of reading will take their own room in the coming few pages.

3.4.2 The Most Common Strategies of Reading

In their book *Learning strategies in second language* acquisition, O'Malley and Chamot (1990: 1) define reading strategies as "the special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information". They (ibid: 197) have divided these strategies into three categories: *metacognitive*, *cognitive* and *social/affective* strategies. While metacognitive and social/affective are indirect strategies, cognitive strategies are used in a direct way (see Zhang, 2018: 57).

3.4.2.1 Metacognitive Strategies

Metacognition is a process of reflecting one's own ideas or cognition in an attempt to optimize one's education (Wilson and Conyers, 2016: 8). Metacognitive strategies include executive functions in learning planning, measuring understanding and performance, and assessing how well a learning aim is accomplished (O'Malley and Chamot, 1990: 197). They have a better likelihood of increasing readers' comprehension (Shannon, 2008: 6). Being engaged in an intellectual activity, these strategies are considered as *higher-order thinking* that entails understanding and control over one's own thinking (Mazorodze and Reiss, 2019: 10).

Distilling the gist of ideas from many proficient contributions on metacognition, there might be metacognitive insights used as strategic knowledge and can be distributed in terms of four categories: (1) knowledge of general schemes that can be used for a multitude of activities, (2) knowledge of the situations by which these strategies would

be used, (3) knowledge of the significant degree to which these strategies are beneficial, and (4) knowledge of the individuals themselves (Pintrich, 2002: 219).

Reading a text by setting its purpose, metacognitive strategies direct readers' attention to plan, execute, and check their reading comprehension (ŞAHAN, 2012: 12). Therefore, the reader's knowledge and the metacognitive strategies s/he uses to process a text, play an important role in text interpretation. Because such strategies are required for successful understanding, several studies have been undertaken to explore the impact of strategy training on the usage of students' strategies.

The findings of such scientific studies, which looked at both students' strategic actions and the impacts of strategy training, show that strategy teaching had a good impact on enhancing students' knowledge of reading strategies and boosting efficient reading (see Kern, 1989; Anderson, 1991; Auerbach, and Paxton, 1997; Tuyan, 1998; Salatacl and Akyel, 2002; Mokhtari, and Reichard, 2004; Özek and Civelek, 2006; Akyel, and Erçetin, 2009).

3.4.2.2 Cognitive Strategies

Having dealt with metacognitive strategies, it is now significant to talk about what cognitive strategies are. It has been stated that metacognitive and cognitive reading strategies are inextricably linked, and that examining one without addressing the other would not offer a comprehensive picture of how the reading process works. This is due to the fact that they both may overlap the same strategy. Take 'questioning' as an example, which may be classified as either metacognitive or cognitive tactic depending on its intended use (Kulkarni, 2022: 22).

Simply put, obtaining knowledge via the use of self-questioning strategy in reading, the self-questioning strategy, in this case, is being done cognitively. When readers monitor what they have read, for e.g., they are acting metacognitively (ibid).

Considering reading as a mental workout, cognitive strategies are applied to a text via a specific activity, an activity that links existing knowledge with new knowledge, extracted from the text, for the sake of generating meaning (Alexander and Jetton, 2000: 286; Afflerbach, 2022, 22). Similarly, assisting a reader to achieve an understanding of a text, cognitive techniques adopt their own way to serve this matter (Ingole and Pandya, 2022: 44).

Regardless dealing with metacognitive or cognitive strategies, they are not "teaching strategies". Rather, they are tactics that readers of all ages may be trained to employ to help them understand what they are reading (Myhill et al., 2022: 55). For example, as a reader, you may now re-read a section of this dissertation because you believe you have missed something. This is known as a 'monitoring technique,' and for the record, you may not have been aware that you were employing such a strategy because rereading a text is cognitively an instinctive procedure. That is to say, "rereading a text we naturally and inescapably create a feedback loop" (see Hutton, 2022: 16). As a result, it appears that distinguishing between metacognitive and cognitive techniques is a tough undertaking. This might be because the former is done consciously, whilst the latter is done unconsciously.

3.4.2.3 Social/Affective Strategies

Identifying a third type of reading strategy within the ground of literature and cognitive psychology, social/affective methods may include

employing social interactions to help promote interpretation, learning, or knowledge building. It might include employing cognitive access to personal reaction which thus affects reading (O'Malley and Chamot, 1990: 232). Social/affective strategies, such as collaboration or self-talk tactics, assist generate effective visceral responses toward language learning (Zhang, 2018: 57). Vandergrift (2003), in his article *Listening: theory and practice in modern foreign language competence*, states that these strategies highlight how individuals interact with each other, validate knowledge, or take steps to prevent anxiety.

Using a concrete illustration of how these strategies work, readers are all unconsciously going through these strategies. They all remember how crucial it was to phone a friend when they did not grasp the thick reading assigned in English class. Simultaneously, readers would spend hours trying to figure out what an author was truly saying about the subject matter they were reading about. With these strategies in mind, one can ask questions during the reading process for the sake of getting additional explanation, verification from a teacher, feedback, and so on (see Herrera, 2022: 55).

Having dealt with such strategies from various perspectives so far though, Jose (2018: 63) has identified these strategies separately: social strategies govern readers' interactions with classmates, instructors, and other individuals, whilst affective strategies influence readers' motivational or emotional states and assist them in controlling their reactions. Thus, both of them (social and affective strategies) refer to how readers engage with one another while reading (e.g., asking questions for the sake of getting certain clarifications) (Au, 2000: 822).

Using her own terms, Oxford (2017: 340) has categorized social and affective strategies as metasocial (i.e., The Community Manager) and meta-affective (The Master Framer) respectively. The former involves context, communication, and culture (CCC). As for the latter, it involves the reader's affective metastrategies of framing (and reframing) the reader's emotional outlook (ibid).

As a concluding word and as mentioned earlier (see 3.4.2), Oxford (1990) proposes a rather extensive taxonomy of reading, categorizing it into two basic types, each of which has multiple subcategories. Since it involves the target language directly, the first type is termed *direct strategies* and is divided into *memory strategies*, *cognitive strategies*, and *compensating strategies* (ibid: 38-39, 44, 48). As for the other, it is known as an *indirect strategy* since it does not directly involve language skills but does help language acquisition. Within the latter classification, there are three subcategories: *metacognitive strategies*, *affective* or *emotional strategies*, and *social strategies* (ibid: 136-137, 141, 145). Diagrams depict detailed descriptors of both direct and indirect strategies readers need them, as seen in Figures (1) and (2) correspondingly:

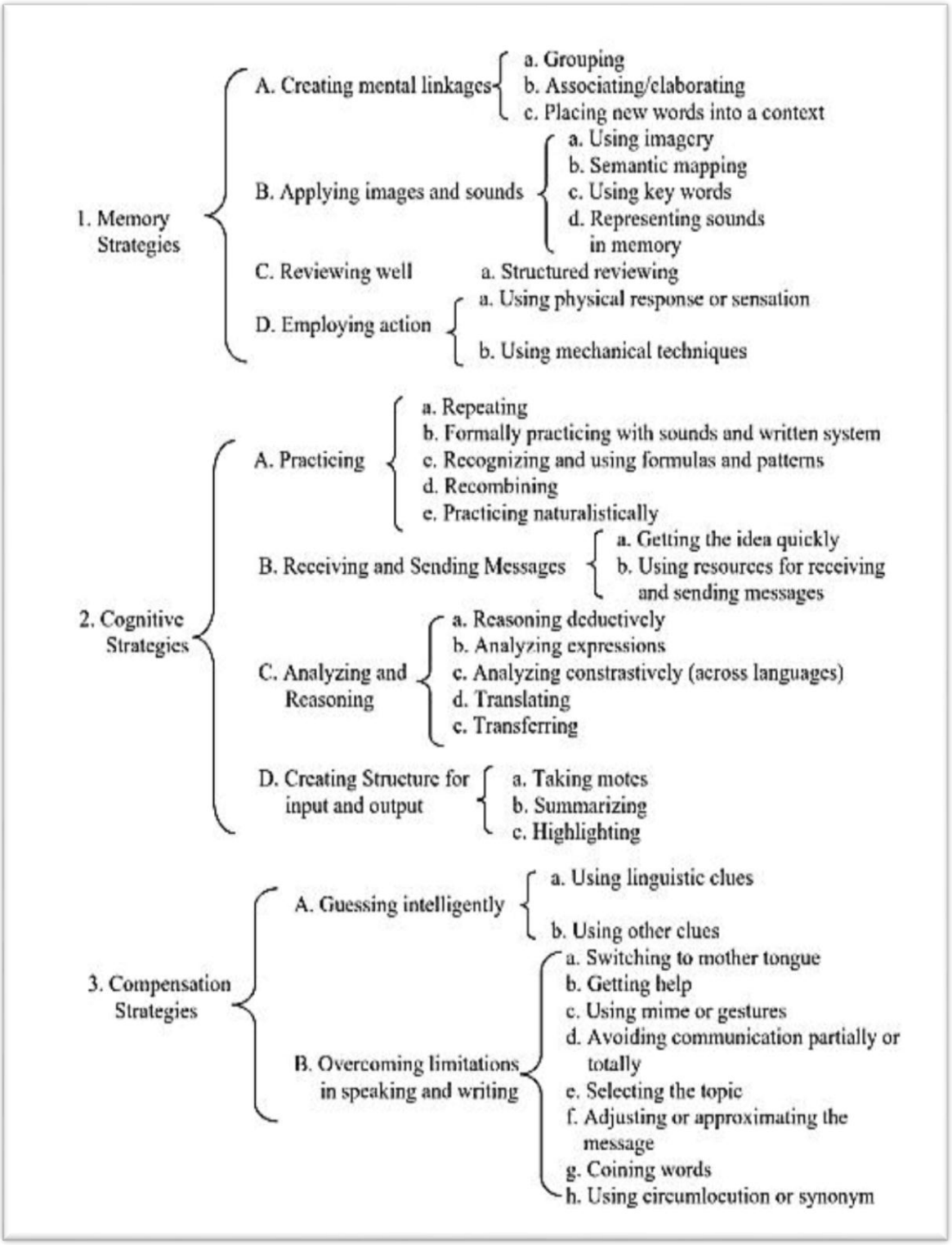


Figure 1 Oxford's (1990) Classification of Direct Reading Strategies

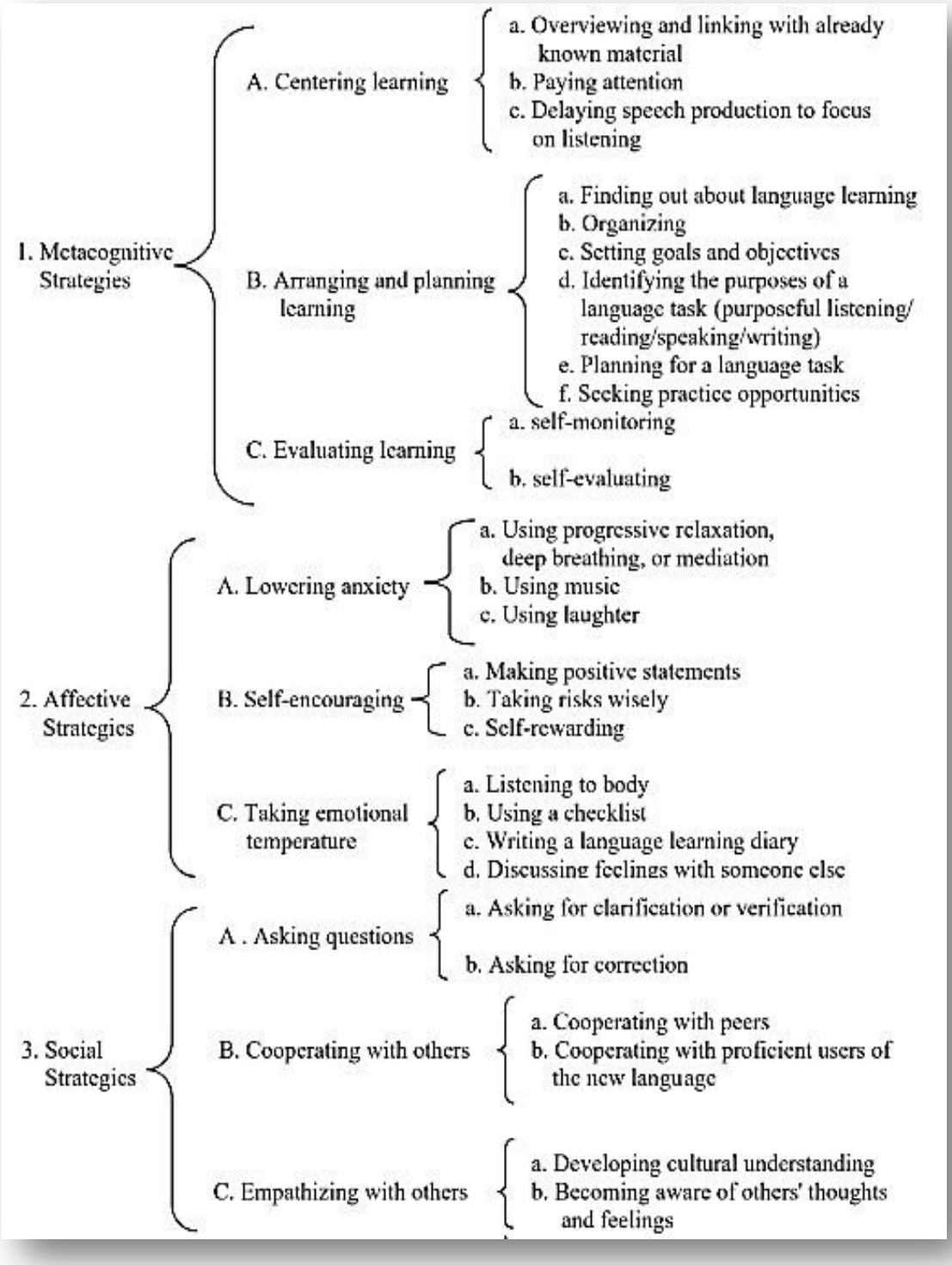


Figure 2 Oxford's (1990) Classification of Indirect Reading Strategies

3.4.3 Graphic Organization and Concept Maps in Cognitive Reading Strategies

Claiming, in 1967, that "reading is a psycholinguistic guessing game" (Goodman et al., 2016: 70), reading tactics, particularly cognitive and metacognitive tactics, place a heavy emphasis on the mental decoding activity in reading, which includes predicting, guessing, reasoning, interpreting, synthesizing, and assessment. Readers with a professional rate of metacognitive capability can use productive cognitive reading procedures to satisfy their interests. A strategy is a purposeful activity taken to attain certain aims. Readers therefore can organize, forecast, examine, integrate, validate, adapt, and assess their reading tactics, and then apply what they have learned in another subject.

Among all of the research-proven instructional tactics utilized to help readers how to read, the implementation of graphic organizers steps out the most. A graphic organizer, is one of the conceptual/cognitive reading strategies, simply deals with readers' schemata or previous information for increasing comprehension skills. That is to say, graphic organizers are "visual representation[s] of information in the text" (Jiang an Grabe, 2007: 34). They are spatial representations of textual content that may be offered to readers as reading tools to go along with texts and express simultaneously vertically, hierarchical conceptual relations and horizontally, coordinated conceptual relations (Katayama et al.,1997: 3).

Following Alvermann's (1981: 4) idea of graphical organization, it is a form of advance organizer that engages a reader's existing knowledge and illustrates the organizing structure of a reading selection by graphically/ schematically depicting important vocabulary phrases.

Looking more closely at the definitions mentioned so far, one may see that these definitions put certain characteristics, highlighted by Stull and Mayer (2007: 810), into one basket as follows:

1. graphical organizers are made up of words;
2. they reveal relationships between concepts by employing spatial configuration of information found in the text;
3. they reflect the text's organizational structure; and
4. they may be utilized in contemporary narrative and informative texts.

These defining features seem to be general enough to include other terms such as: *concept maps* (Novak and Gowin, 1984), *hierarchies* (Cook and Mayer, 1988), or *lists* (ibid) when they provide a spatially ordered grouping of components employing blank space, *outlines* (Balluerka, 1995), *flowcharts* (Chambliss and Calfee, 1998), *matrices* (Robinson, 1998; Kiewra, Kauffman, Robinson, Dubois, and Stanley, 1999) and even *knowledge maps* (O'Donnell, Dansereau, and Hall, 2002).

However, graphic organizers are graphic representations of large groups of connected ideas. They may be employed as a part of reading strategies in actions such as pre-reading, while-reading, and post-reading. They can also be used by teachers to assess individuals' reading ability. According to schema theory, which supports that knowledge base can increase reading comprehension, texts with known themes or recognizable rhetorical style enhance reading comprehension (Mahmood et al., 2013: 230).

Increasing the level of understanding while reading a text, graphic organizers hence can be employed as reading aids. This is due to the fact that graphic organizers have a sort of *cognitive/conceptual* map, which is

one type of graphic tool that might influence readers' comprehension of narrative texts (see Manoli and Papadopoulou, 2012: 350). Basing such a term, "cognitive/ concept map", on Ausubel's (1968) integration theory of cognitive learning, it was Novak who firstly developed such a map (Novak, 1990; Novak, 1991; Novak and Musonda, 1991).

Nevertheless, concept maps are organizational representations of ideas that are commonly grouped with the most fundamental, most comprehensive notion at the forefront of the map, followed by less broad sense, less comprehensive notions in fitting lower locations (Novak, 1990; Novak and Cañas, 2008: 2). They can also express many forms of relationships across ideas that readers are likely to experience in texts, such as direct comparison, causal, expository, and sequential, thereby promoting understanding of the text (Oliver, 2009: 402-3).

As for their principal task, these maps concentrate on selecting the core ideas (key words) of the text, uniting them with related links, and exhibiting the basic framework of the text. As a result, conceptual maps are indeed an effective instrument for representing information in almost any field, aiding in the organization, comprehension, and retrieval of new content (see Novak, 1990; Schmid and Telaro, 1990; Chang et al., 2002; Chalarut and De-Backer, 2004; and Oliver, 2009). Adopting Novak and Cañas' (2008: 2) diagram of cognitive/concept maps, it can clearly be shown in terms of Figure (3) below:

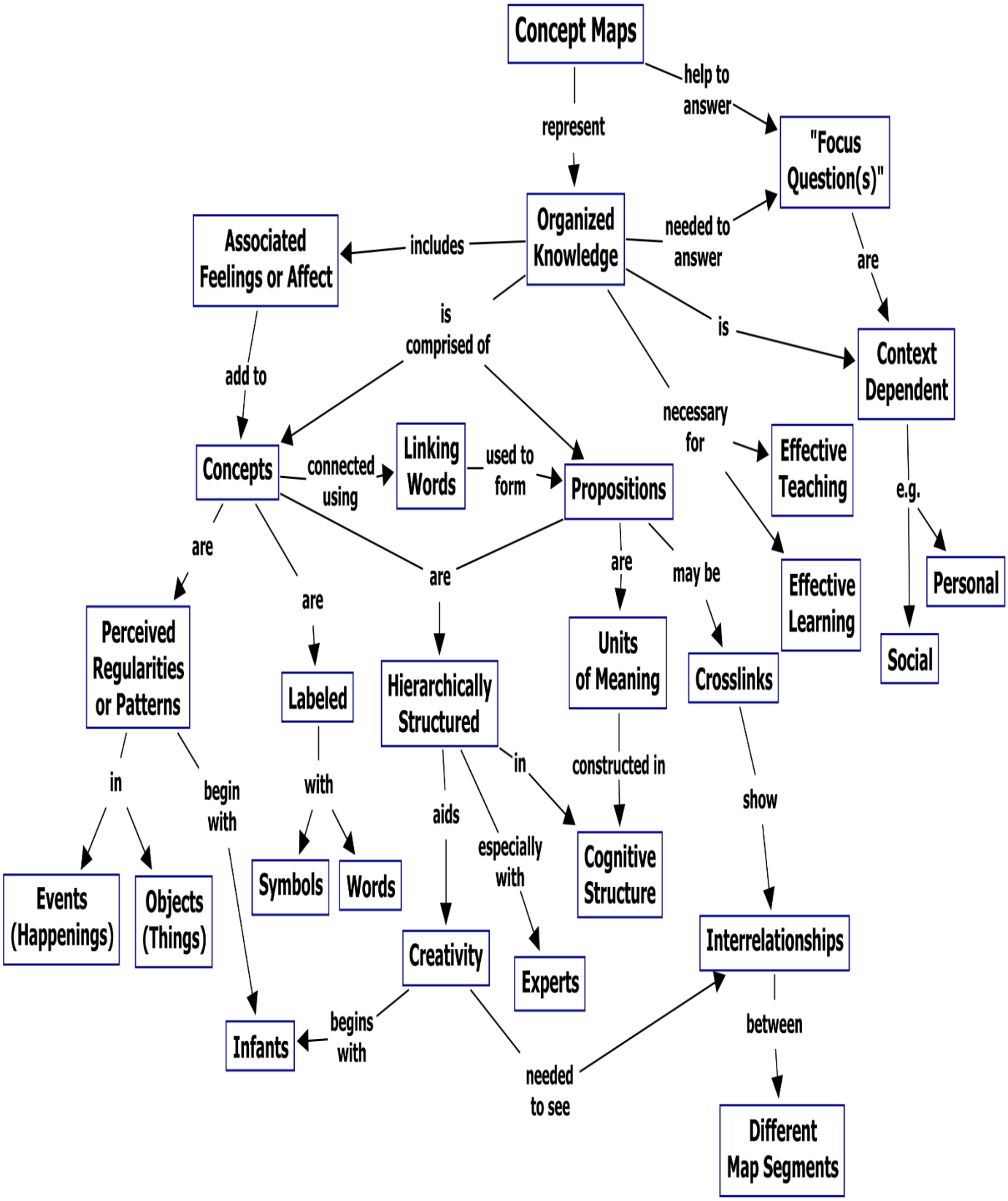


Figure 3 The Cognitive Map that Shows the Key Aspects of Concept Maps. Concept maps tend to be read progressing from the top downward, Adopted from (Novak and Cañas 2008: 2).

3.5 Schemata and Reading Comprehension

Reading, as almost all people know, is the process of deriving meaning from printed texts. Meaning is not transmitted by solely physical linguistic forms, such as letters or textual symbols. Every meaning is determined by the shared or "implicit knowledge" of individuals who use the language (Arima, 2022: 135; Schoenherr, 2022: 127). That is, meaning is gained not just from printed symbols but also from even beyond printed text. In other words, during reading, readers integrate their familiarity with the subject being read, or schemata (previous knowledge), to comprehend the writer's underlying point.

According to Khemlani et al. (2000), a number of scholars, such as Goodman (1970) and Smith (1978), have proposed interactive reading models, with a heavy focus on readers' involvements and the information they contribute to the text. These reading models are primarily influenced by the so-called *Schema Theory*. Through research and investigation, it is found that it was Bartlett (1932), *the father of Schema Theory* (see 3.1), who first created a sort of *Cognitive Framework*.

According to Bartlett (ibid), humans do not remember things exactly as they received them from the world around. Nevertheless, they recreate mental remembrance of prior events and details using conceptual frameworks (i.e., schemata). The latter is designed to act as "templates" that give a skeleton of generalizations into whatever special details of information or events can be inserted. This can help memory by removing the need to recall similar parts every time they emerge, and simultaneously distort memory simply by recalling false stereotyped qualities (Hall and Slaney, 2016: 298).

Metaphorically speaking, such phenomena can be best portrayed in term of a *filing cabinet* (i.e., it keeps information categorized, and schematizes our knowledge and memories to make them easily accessible. Figure (4) below illustrates this cabinet. The entire cabinet might be viewed as the mind, and one specific file as a schema. Within that file, there can exist a memory, knowledge, or specific information, all of which are stored in or covered by the mind. People, in this regard, can access to that file and activate it by outside stimuli. It allows them to conserve cognitive resources and learn in a more effective way. Reading, in this sense, is predominantly a mental activity in which concepts are activated and modified in the reader's mind. The conceptual information brought to text comprehension by the reader must be managed in manners that enable him or her to activate it properly and regularly in order to reach at an acceptable cognitive interpretation of whatever a reader reads a text.

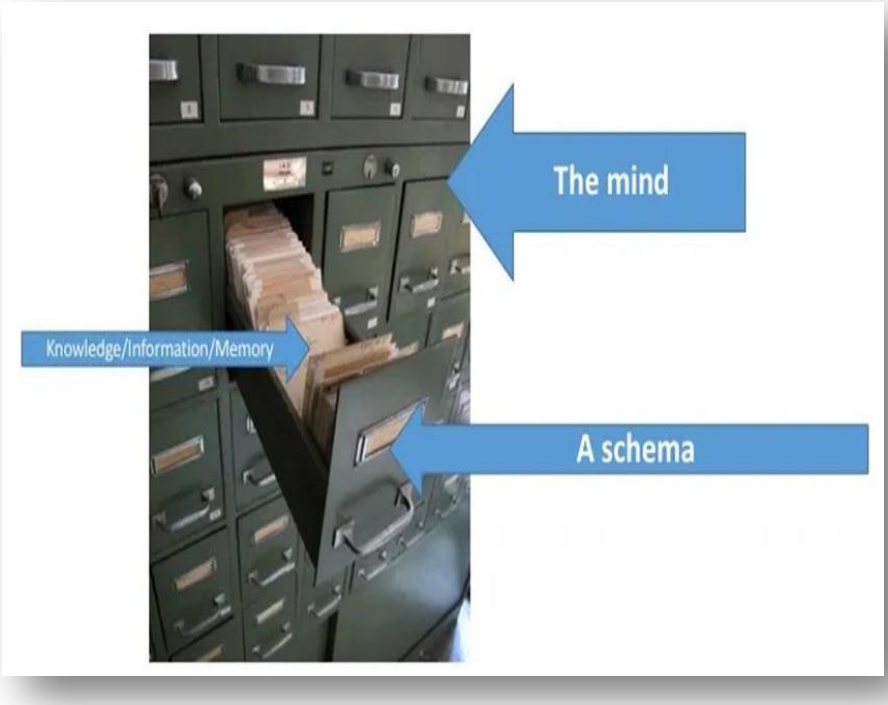


Figure 4 A Filing Cabinet , Adopted from www.themantic-education.com

Cognitive psychologists and linguists, however, keep referring to knowledge categories as *schemata*, leading to activate pieces of conceptual understanding. It is thought that any typical person has hundreds of thousands of schemata in memory, which are interconnected in an unlimited number of ways (Rost, 2016: 52). Furthermore, new schemata are continually developed, and current ones are regularly updated: Once people read, hear, or see anything new, they, in turn, generate new schemata by connecting one fact to another via logical or semiotic relationships (Reitbauer, 2006: 66).

Identifying what the distinctive feature of schema theory is regarding reading, Brown and Lee (2015: 391) state that a text itself does not contain meaning on its own. Rather, it is up to the reader to add knowledge, emotion, and culture to the printed word that is schemata.

Working like a figurative description, a schema is all about a group of concurrently activated or engaged relationships (i.e., related nodes), which are existed in the frontal cortex of human brain. Each node goes hand in hand with another node, leading to the activation of the whole network, or using Johnson-Laird's terminology "network of processers", that an individual needs to conceptualize the world around him (Rumelhart and Norman, 1981:357-8; Johnson- Laird, 2008: 55).

From this, one can surely know that what marks a schema is not its construction but the fact that it is a network of interconnected relationships, not a neurological construction that is its structure is heuristically designed. When a network of knowledge nodes is required to help someone into an action, for example *trying to withdraw cash from an ATM* or *talking with a telephone solicitor*, it turns into a heuristic. As these schemata might well be connected together in various ways, the

relations among these schemata within a sort of "schematic net" are seemingly endless (Churchland, 2012: 52).

Making this clearer, an interesting example might be presented in this regard: If there is a discussion about the movie *Superman*, you, as a reader/listener, would then unexpectedly initiate a network of mental representations of what you know about the movie, such as the flying man, superhero leader, movie characters, and the like, associated with each of these schemata and all of their complex interactions, your understanding of the discussion itself will be enriched.

Indicating that all of our schemata have an abbreviated description for our accumulated experiences, as well as a storage mechanism that includes both language and non-linguistic features, detailed inferencing is driven by activating several schemata. Such an activation enables us to predict the existence of individuals, activities, static and dynamic images, and other perceptual facts that are not directly mentioned in the text.

For instance, if an author narrates an accident at a rail station during morning rush hour, readers can infer the existence of many passengers, railway noises, body crush, and so forth. Since a schema has fully mature archetypal components, the ideas might even be used to create default values whenever details are not there in the text.

Having enough grasp of the text themes, the author and reader do not need to hold equivalent frames of reference (i.e., schemata). Simply, activating an adequately connected paradigm helps the reader to draw inferences necessary for text comprehension. In this sense, two arguments might be made that an appropriate understanding is formed as a result of a relative resemblance of schemata in the minds of both the author and reader (Rost, 2016: 52). As for the second, a misinterpretation

occurs when there are significant mismatches between the author's and the reader's schemata. Thus, non-understanding occurs when there are breakdowns and the reader is unable to trigger any suitable schema that is violation or deviation (ibid), more precisely *Schematic Knowledge Deviation*. Figure (5) below illustrates the way schemata are figuratively constructed in human minds:

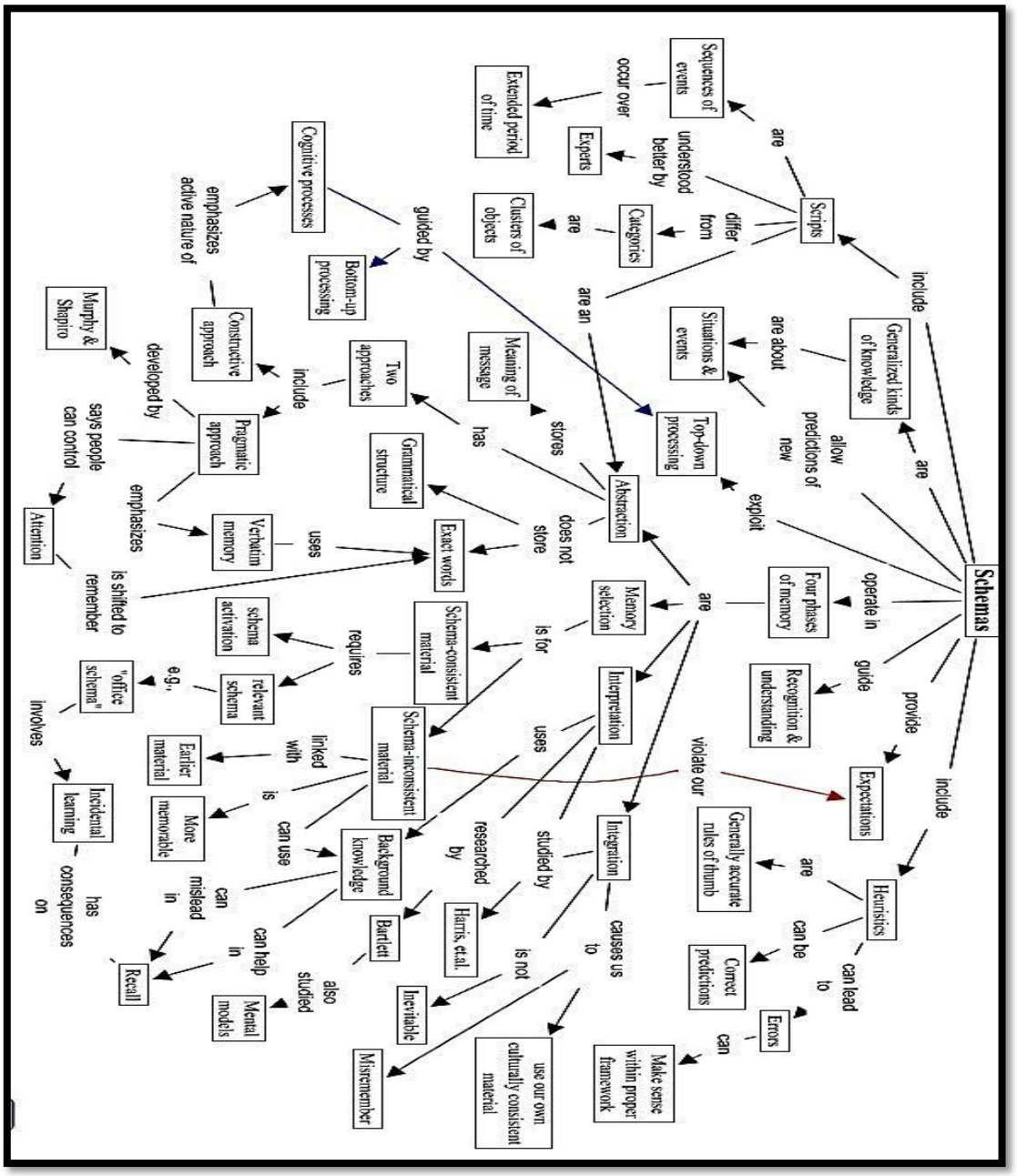


Figure 5 The Building Blocks of Schemata in Human Mind, Adopted from https://cmap.ihmc.us/

The next schematic figure, which narrows the preceding one, clearly depicts how schemata are created and what components are associated with them in the human mind:

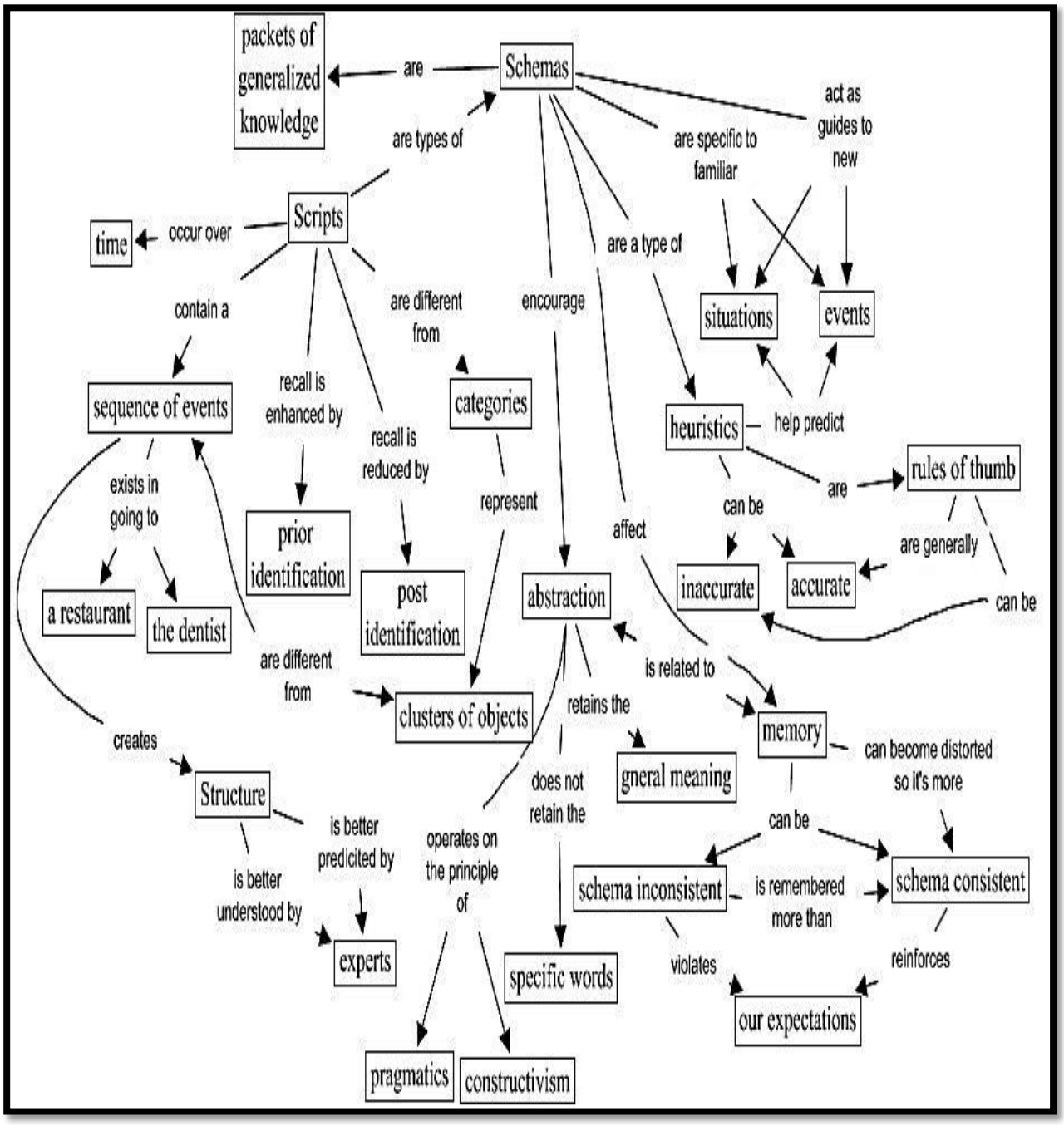


Figure 6 A Complex Network of Schemata , Created by IHMC CmapTools

3.6 Schemata Typology

Cognitive social psychologists have discovered many sorts of schemata that humans employ to organize knowledge concerning their surrounding life. As previously stated, a schema is a mental construct that consists of a cluster or series of connected concepts. Schemata come in a variety of forms, however they all have one thing in common: they are a means of organizing information that helps the brain to operate more productively. When a schema is triggered, the brain automatically draws inferences about the person or entity under observation.

Reading comprehension is driven not just by the reader's competence to interpret a text and making inferences from it, but also by his familiarity with the language and his own perspectives of the world. This is what the reader adds to the text based on his previous data and work experience. Such a knowledge is well described in terms of schema theories of comprehension. Because schema represents a high rate of domain-specific mental representation, it may be regarded as a framework of knowledge acting in an overarching way to interpret the input (see Padma, 2008: 30).

Shading the light on certain previous studies, many schema types have been proposed. Take Johnson (1981) for example, she proposes **content schema** as a fundamental schema that readers adopt when reading a text in order to interpret it. This schema, she claims (ibid: 180), integrates the reader's previous information as well as the cultural knowledge of the print. Carrell (1985), on the contrary, feels that content schema alone is insufficient for good text comprehension. She divides schema into two main types: **content** and **formal**. She describes the former as a reader's prior knowledge of the text's subject matter. The latter is characterized as information relating to something like a text's

technical, rhetorical organizing patterns (ibid: 727-31). Casanave (1988: 297) further adds **strategy schema** to the sorts of schemata mentioned above. To her, a strategy schema is a common knowledge that permits a reader to do regular inspections while reading (ibid). Turning to the 1990s, Widdowson distinguishes between two types of schema: **ideational** and **interpersonal**. He (1990: 108) describes the former as the way people understand the conceptual content or theme of a topic; whereas the latter is preoccupied with ways of communication.

Later, Oller (1995) formulates a new sort of schema, that is **abstract schema**, in addition to content and formal schemata. He asserts that abstract schemata bring logical interconnection to the purity of concepts that is perfectly universal (i.e., abstract, non-material, non-syntacticized). Tackling Content schemata, they are associated with sufficient details of thoughts in the material world as perceived. As for formal schemata, these are the outcome of inferential relationships founded all over distinct states of matters that are archived as being identical in some way (ibid: 38).

Following the same ground, Landry (2002) presents three sorts of schemata: *content*, *formal*, and *abstract*. To him, content schemata are clearly visible relationships apparent out of a topic. While formal schemata are different links depending on comprehension of assumptions and mental frames, abstract schemata are the thematic considerations and unseen aspects existed in the mind (ibid: 1).

Among the different types of schemata mentioned so far, Huang (2009: 139) includes **linguistic schemata**, which are responsible for decoding certain elements required for recognizing words and how these words go hand in hand together in a sentence.

In his paper entitled *Relational Schemata and the Processing of Social Information*, Baldwin (1992) highlights several sorts of schemata that humans frequently possess. These are summarized in the following points:

1. **Person schemata** are distinctive to people. For instance, knowledge about a friend's looks, habits, personality, and interests may be included in one's schema (Baldwin, 1992: 462).
2. **Social schemata** are interested in how individuals act in specific social contexts using their general information (ibid: 464).
3. **Self-schemata** are concerned with individuals' understanding of themselves. This can comprise both knowledge about their present self and beliefs about their idealized or future self (ibid: 468).
4. **Event schemata** are concerned with behavioral patterns that need to be observed in response to specific occurrences. This is similar to a **script**: it tells people what they should do, how they should act, and what they should say in a certain circumstance (ibid: 466).

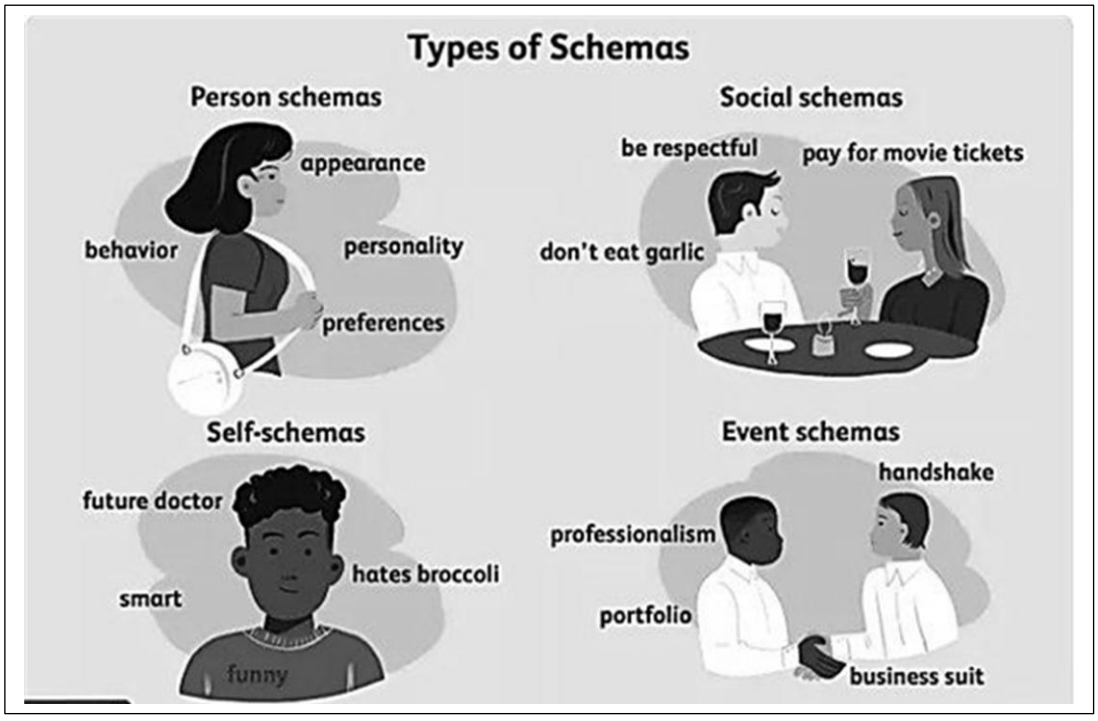


Figure 7 Other Types of Schemata with Their Examples , Designed by Emily Roberts from www.verywellmind.com.

To summarize, everyone has schemata for everything. Long before they enter school, pupils, for example, form schemata (units of knowledge) about everything they encounter. Schemata evolve into hypotheses about reality. These hypotheses do not only influence how information is understood, hence influencing understanding, but they also alter when new information is obtained.

As you are reading now, consider your DOG SCHEMA. Within that schema, you would certainly have knowledge regarding dogs in general (e.g., bark, four legs, teeth, hair, tails, etc.) as well as individual dogs, such as collies (long hair, big, Lassie) or springer spaniels (e.g., English dogs which have docked tails). Dogs, like other creatures and living organisms, breathe and consume food. Your understanding about dogs may also include the fact that they are mammals, which means they are warm-blooded and bear their puppies rather than laying on eggs.

Finally, schemata govern how readers perceive incoming information, and their effect during reading may rather be quite powerful. Schemata, as a result, enable writers to jump to conclusions around what readers already know concerning a particular topic.

3.7 Schema Theory and Designed Patterns

Forming them from genuine concepts, designed patterns are presumed to be real as well (DeLano,1998: 89). The challenge is ensuring that a pattern has been properly documented. There is currently no automated or systematic method for extracting a pattern. This is due to the fact that patterns are hazy, and individuals, as they differ from each other, may have different patterns in their heads (Sarto-Jackson, 2022: 41). Take the pattern of a *lecture* as an example. Most individuals

understand what "lecture" means and have their own thoughts about what it does really mean.

However, capturing the precise and interactional nature of environment, in addition to causes, issues, and solutions, is a rather challenging. Some individuals are more familiar with the structure of a lecture; others are more engaged with the teaching methodologies. Arguing that various people have distinct thought processes, the specified patterns will differ not just in style but also in content relying on who created the patterns. As a result, distinctions must be made among three sorts of patterns, patterns in the actual world, in a person's mind, and documented patterns (see Figure 8).

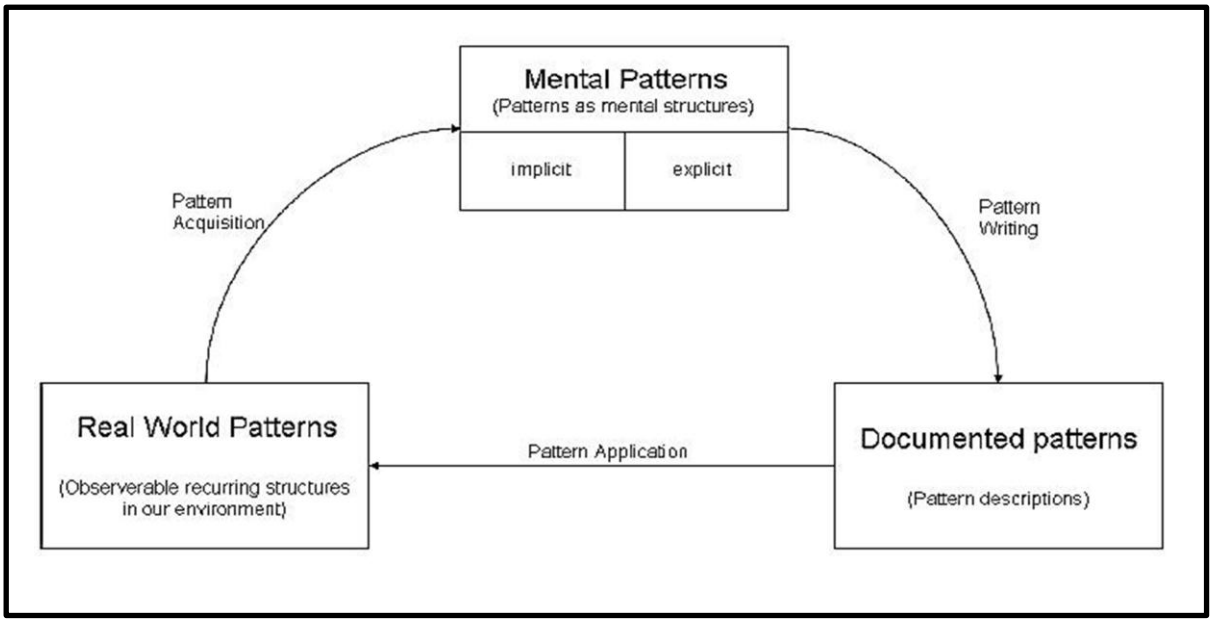


Figure 8 Real World, Mental and Documented Patterns Adopted from (Kohls and Scheiter, 2008: 1)

Differentiating between real world and documented patterns, Gabriel (2002: 175) states that a pattern is somewhat something in the world (e.g., the configuration observed in high quality products, and simultaneously a literary form (e.g., the textual explanation of the

physical configuration). Acting like components, these patterns are already existed in human mind. Using his own words, Vlissides (1998: 4) portrays the fact that "nothing is ever totally new; people have had patterns in their heads for as long as there have been heads. What's new is that we've started naming the patterns and writing them down".

It is worth noting that the term *real world pattern* corresponds to the commonalities mostly go hand in hand with the way *actual forms* in reality are structured. Regarding the nature of reality, it makes no claim that whether these *actual forms* exist in an external world or a sociologically manufactured actuality. This has been clearly made by (Kohls and Scheiter, 2008: 1) when they use the term "real" only to differentiate between perceptible objects in the external world and objects in human minds. This leads to the fact that pattern languages had previously been thought of being mental representations that language users have (Van der Veer and Melguizo, 2003: 79).

Last but not least, since schemata are the most convenient techniques humans utilize to arrange complicated relationships, a schema, as an abstraction, outlines the regular traits of comparable items or associations in terms the design patterns hidden in human mind (Ciceri et al. 2022: 56). For instance, if you are told that person is an instructor, your schema will automatically hold several assumptions and convictions about the related activity: instructors work at a school or university/college, have an eight-hour working day, and thus must grade course quizzes or exams, and so on. In this case, you will actually remember your own instructors, whom you have archived in mind as patterns of the INSTRUCTOR SCHEMA.

Putting in mind that schema theory proposes further explorations for how patterns are organized in the mind, schemata might be viewed as structural units. In order to gain a better insight of what binds a schema together as one piece, four traits of schemata will then be highlighted hereunder.

3.7.1 Structural Traits of Schemata

Hypothesizing that schemata are structural units, they reflect ideas, scenarios, activities, intentions, attitudes, and so on. This is due to the fact that they include mental images of many occurrences of the same sort. According to schema theory, this unit is an existing pattern happened to occur in the *memory*, in which the latter organizes a person's related experiences. It is utilized to distinguish identical and different new experiences, retrieve the main aspects of the pattern (including verbal and nonverbal features), make conclusions, set objectives, construct strategies, and employ technical protocols, or standards appropriately (Marshall, 1995: 39).

Making this clearer, a CAR schema, for example, is a simplification of all the vehicles that a certain person has witnessed or experienced previously. Although it fails to cover all of the characteristics of each automobile viewed, it does include the fundamentals: the key elements and attributes that (nearly) all vehicles share. If a person faces an item that contains the same characteristics and associations as those in his/her CAR schema, that person would identify it as a car. As being so, the automobile looks as a gestalt (see Köhler's gestalt theory, 1961: 1), an enclosed entity that is emerged as a unified form in which its layout is in a harmonious relationship. Gestalt theory covers both schema and pattern theories. It holds a cognitive perspective and both Bartlett and Piaget

(Ogiienko, 2022: 161) have been influenced by such a theory. When Alexander discusses wholeness or completeness (2002: 79), gestalt psychologists were interested in justifying how our perception of things is held in terms of whole forms.

In their POSA (Pattern-oriented software architecture), Buschmann et al. (2007: 553) talk about the same idea, concerning wholeness. As for Alexander (1979: 163), he has used the phrase: the "quality without a name" as a synonym for wholeness regarding the pattern notion. This attribution appears only when a design is cohesive as a whole. It is based on gestalt psychologists' belief that the total is greater than the individual components, hence, creating spontaneous characteristics (Pineda, 2022: 50).

3.7.2 Schemata and Their Variable Values

Viewing schemata as structural ingredients, they in fact consist of certain variables, known sometimes as slots and/or attributes (Meditskos and Bassiliades, 2009: 135; Valliere, 2019: 100). Each variable can handle a limited variety of values (or slot fillers or various attributes) as data (Seel, 2012: 2935). The conceivable set of distinct values represents individual's range of experiences with a certain idea and decides whatever additional experiences would be instantly recognized as referring to this concept (Cummings and Cooper, 2001: 24), i.e., without the requirement for subsequent modification of the current schema.

In rare circumstances, particularly when a schema is extremely specialized, a rather fixed variety of distinct values might well be utilized as a filler. For example, many individuals believe that a *car* really does have four wheels, but others with a larger variety of experiences believe

that the characteristic 'number of wheels' can have values ranging from two or three to numerous.

As will be discussed in Chapter Four, schema theory commonly applies to adjusting the *variable values* or *levels of details* by increasing or decreasing their potentially load with reference to the linguistic cues a text provides.

Besides, these variables, that comprise a schema, are frequently interconnected. Yet, the setting of associated possible values is not independent. Taking a DRIVING schema into consideration, a CAR is a configurable value since one could drive heavy vehicles besides cars. Other levels of detail (i.e., variables) in the DRIVING schema may also include the way the driver drives his/her car with, street category, or even the destination the driver is headed towards.

Cognitively speaking, each variable can have many choices. Take 'Street' as an example, it can have certain levels of detail: highway, country road, or forest road. Taking the forest path limits the individual's driving style since such a path does not permit speed. As a result, these variables limit each other, and a particular setup of certain possible values suggests that only specific values are more expected for other details/variables. The schema structure, hence, includes implied limitations and certain chances for the occurrence of some distinct values.

Speaking of such limitations, several sorts of automobiles that can be steered. For instance, a car, a bus, or it might be a train, are all acceptable choices/values for the DRIVING schema (or the slot). Consequently, driving a traffic signal is an unacceptable option for the slot. Furthermore, the acceptable values have varying degrees of probability. In "John was driving last night", there is no specific vehicle

mentioned in the previous sentence. Nevertheless, it is more plausible to conceptualize that "John was driving a car" than that "he was driving a bus or train", though it can be used as a valid choice. Likewise, the same example may trigger an "AIRPLANE AT AN AIRPORT schema" since the information provided in the sentence most likely corresponds to that scenario.

Other scenarios might be included in this regard, such as "John was on a speedboat driving with passengers" or "a youngster whose name is John participating in a role play racing with his school mates". Individual expectations based on one's personal experiences, or patterns (i.e., schemata), thereby decide which values/levels of detail and/or variables are acceptable.

3.7.3 Schemata Instantiation

Defining it as a particular cognitive representation of the implicit idea stored in the schema within human mind, schema instantiation (henceforth SI) is all about a process in which variable slots are filled with their exact values (Crockett, 2015: 34). To illustrate this, although the CAR schema abstractly represents all vehicles, its schematic instantiation relates to a regular car. However, schemata have an universal dimension that enables individuals to infer concrete structures from abstract structures. Not only does a person recall pictures of cars previously seen in the past by initializing the slots with the relevant information, but s/he may also envision new cars. Whether dealing with Patterns or schemata, they similarly establish design spaces that encompass all structures that fit a particular pattern/ schema (see Buschmann et al., 2007: 76).

The variable slots (discussed in 3.7.1.1) and their corresponding value restrictions can open up the gate towards creating a set of schemata, which includes details that are required or optional ones. As the variable slots have various possibilities for their entries, the item space inherently contains a prototype representation of its item. This what SI works for (i.e., all of the slots have their own default values). Extracting the variables, that only matter, from the various slots for each item, one must select the ones which are filling the slot, the ones which are regular for the slot (Alexander, 1979: 260).

3.7.4 Schemata Activation

Understanding a given scenario and/or planning an acceptable action entails selecting an appropriate configuration of schemata from an individual's personal accessible repertoire. Choosing the optimal schema configuration to account for a certain scenario is inextricably linked to how individuals process their surroundings. Rumelhart and Norman (1978: 43) refer to such a process as 'comprehension'. Such a process is all about selecting an organized information, which allows people assimilate new information into a thing people know about (Kalyuga, 2009: 27).

However, a two-way mechanism language users always go through: *initial selection of schemata*, then *verification* or *rejection of certain choices*. This is supported by Rumelhart and Norman (1978: 43) when they say something related to the way individuals differently interpret the scenarios they are involved in:

> A major portion of the processing effort involved in comprehension is directed toward determining the appropriate schemata for representing the situation. Once an appropriate configuration of schemata has been found, the constants of the situation have to be associated with (bound to) the variables of the schema. The schema that is selected will

> determine the interpretation of the situation. Different schemata will thereby yield different interpretations of the same situation, and different features of a situation will take on more or less importance as a function of that interpretation.

Accessing the appropriate schemata is rather challenging. This is because stored schemata can be *collaborated* and/or *competed* with each other in human minds (see Figure (9) below), leading to cause a hard matching task of patterns. Hence, the availability of relevant details triggers schema activation. Taking 'eyes' and 'lips' as an example, they both help activating HUMAN FACE schema since it provides the necessary slots for correctly assimilating the provided details (i.e., eyes, lips, etc.).

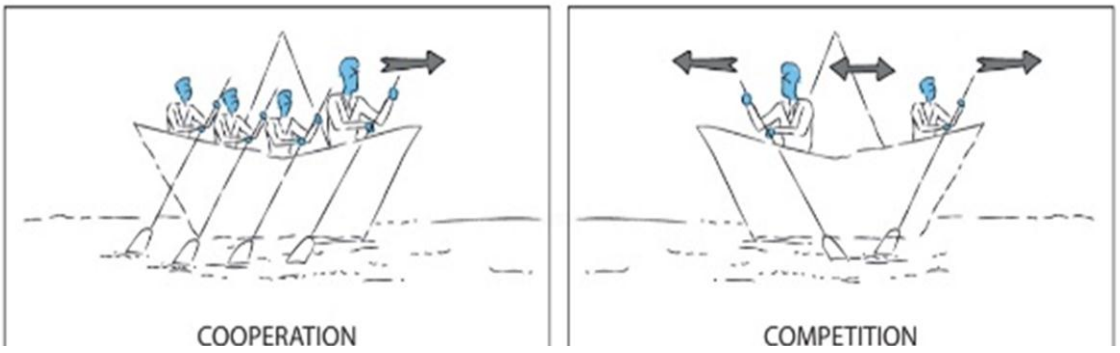


Figure 9 Being in the Same Boat: Two Different Schemata of Social Behaviour Adopted from Agnes et al. (2022: 278)

Spilling a great deal of ink on a more intuitive level, there might exist *competing schemata* (Agnes et al., 2022: 278), such as ANIMAL FACE. Furthermore, additional details are required to trigger an even more particular schema, like MALE or FEMALE FACE schema. Once one hears a name, such as "Mary", it might signal that the FEMALE FACE schema should always be triggered. As a result, the three activated schemata, EYES, LIPS, and the FEMALE NAME 'Mary', all work

together to create the advanced level, that is the FEMALE FACE schema. From this, one can for sure state that schemata are assumed to be self-evaluative. In other words, a specific schema may determine the probability that it can reflect the actual reality for any given input stimulus.

3.8 Technical Difficulties in Measuring Style

As previously stated, *style* perfectly captures a language individual's specialness and uniqueness. Historically speaking, it has been classified as a *choice* or preference of linguistic means; *deviation* from social conventions of language use; regularly occurring characteristics of language expressions; and distinctions (Dillon, 1995, cited in Choudhary and Mathur, 2018: 1).

Taking it in terms of a Nigerian context, style has been identified as textual exclusivity a usage that does stand out within the text; habituality a recurring method of organizing small details presenting the repetition of certain textual features; and aesthetic value a sign of art or artificiality within the text (see Oloruntoba-Oju 1998, vi).

Adopting style as deviation (see 2.6.3), scholars, working on individual's style, are focused on texts that can be aesthetically distinctive, whenever a language deviates from several expected standards or norms (i.e., normal schematic knowledge). While seeking to quantify the aesthetic style of a particular text, one might cognitively examine the deviation of its linguistic elements—the deviation that goes against the normal schematic expectation an individual has in mind. However, the following three statements summarize the different technical glitches that arise when determining what the style of a particular text is:

1. an investigator cannot gauge a certain style if two separate genres (e.g., novel vs. poetry) are being investigated. Any scholar, for example, cannot identify the *literariness* of two distinct works. Such a dilemma may be circumvented through using two distinct works of a similar text-type (Tse, 2011: 237);
2. style cannot be determined unless it contains frequent items. This obstacle arises from the fact whether certain linguistic experiments may only concentrate on single phrases that are used only one time throughout the whole text. These are known as "hapax legomena" (see Oakes, 2009: 1073). These items exist at lower frequencies making the statistical analysis rather challenging. Trying to overcome such a challenge is accomplished quantitatively through the adoption of key-phrases that appear regularly in a text (ibid);
3. style cannot be measured due to the futility of having all the lexical items that could be discovered in a literary work (Leech and Short, 2007: 36). This absurdity arises from the fact that all languages people use for communication is an open-ended and are of complicated networks. Having to face such a challenge is achieved by detecting the significant attributes included in the literary text under investigation (ibid).

3.8.1 Style: The Power of Mind Style as a Loaded Weapon

Stating that "a writer's stylistic choices enable or facilitate certain kinds of readings while closing off or suppressing others" (Carter and Nash, 1991: 22), style, unlike other traits of language, is a matter of choice (see Section 2.6.1). Whereas many parts of language usage are unavoidable, stylistic choices entail cognitive processes that necessitate the mind and show a stronger impact of the mind. Shifting the focus to cognitive approaches, they provide a quite promising area to deal with the

nature and ramifications of style differences. In stylistic studies, these approaches cognitively consider style as a mirror of thought and as being directly tied to the essence of literature (Boase-Beier, 2006: 72).

With the aid of cognitive theories, reading, as a process, is a way of transforming minds (see Fish, 1980: 66). Linking linguistic style choices to mental processes and structures, such theories are the outcome of cognitive stylistic orientations applied to both language and (mind) style analysis (Rundquist, 2017: 86). Contemporary cognitive stylistics, as emphasized in the second chapter of this dissertation (see Section 2.2.3.5), investigates the idea of *mind style* (see Aquilina, 2014: 191). The idea of mind in texts may be approached in terms of two perspectives: as it is formed in the text and affects the reader in some manner; or as the mental process indicated by the interplay of the implied writer's mind style and the reader's mind style or the "implied reader" (see Ammann, 2020: 197)

Expressing a cognitive state in all of its characteristics, cognitive approaches to stylistics speak of expanding collaborative cognitive surroundings of both the reader and the writer. Hence, this excludes the outdated notions of reading and mind style regarding texts as a kind of re-experiencing the writer's ideas (see Hirsch, 1967/1976; Sperber and Wilson, 1995; Schönfelder, 2016).

In other words, the outdated notions and contemporary notions of mind style differ from each other, and hence there is a need to differentiate them: mind style is used to denote how the writer of a text has previously experienced certain events occurred in the past. Whereas today, mind style deals with both the mind style of readers and that of the writers, with primary concern given to the reader's mind. Therefore, the

reader, so does the writer, approaches a literary work, as conveying thoughts, emotions, moods, beliefs, as well as their mental states, that is their mind style.

As a concluding word, cognitive mechanism, like the way minds operate with, is handled by the writer first and foremost as a reader, including an *implied author* lurking behind the scenes. The word "implied author" is employed this way not to dismiss the writer, but rather to appreciate his/her unavoidable existence in the reader's consciousness. This sets the stage for the next three items, that deal with the writer's and reader's styles and the writer's responsibilities respectively.

3.8.2 The Author's Style in Writing the Text

Following an old and fair statement that a text is created by a person leads to the right to assert ownership of his/her work (Cohen, 2008: 293). Since the significance of human action in the creation of a literary piece is self-evident, 'axiomatic' (Harding, 2002: 6), intentionalists have proclaimed *authorial intentions* as the ultimate goal and foundation for all text interpretation (Dworkin, 2015: 37). The text, as a result, would not have existed if these intentions have not been there (see Huemer, 2004: 7).

From this, one can infer that readers must make every effort to achieve interpretation, and for those who do not state it, they presumably adapt the interpretation intended by the text's creator. But what exactly is the intended message here? Is really not the writer's purpose a fallacious argument?

Undoubtedly, the writer truly makes his/her own stylistic and/or linguistic choices, regardless of whether consciously or unconsciously, and intends to convey a specific message. It is additionally evident that

the writer is indeed the maker of his/her writings and has various interests and objectives in mind, however that writer is not the rightful owner of the text once it becomes in readers' hands.

Taking another perspective in terms of the writer's style, some writers may intend to mean something when writing their texts, but may change their mind later on (see Wymann, 2021). In his 'A Very Personal Conclusion', Tuerk (2020) claims that the overwhelming majority of writers do not reveal their goals behind producing their pieces, leaving the door open for readers to interpret meaning.

Authors, of course, have their own goals and aesthetic choices. Their intents and decisions are undertaken by the their cognitive, interpersonal, artistic, social and ideological settings, and thus are not applicable to readers who might be in a totally different setting. As a result, both the intention and style of an author are *author-specific* rather than *reader-specific*. Though the writer's aesthetic preferences are supported in his/ her writing, the writer's intentions definitely must be interpreted by the readers themselves.

Providing examples of stylistic choices and features, almost all readers know that *ambiguous styles, metaphorical manifestations, allusions, sarcasm, unsubstantiated claims, forms of culture, policy ramifications, and ideological phrases and expressions*, are perhaps the most noticeable examples of uncertain intentions made by an author. Finally, the reader significantly contributes to text meaning and interpretation since *reading* received a lot of attention in contemporary stylistic studies.

3.8.3 The Reader's Style in Interpreting the Text

Interpreting a text in their own terms of mind, schematic knowledge, cultural influences, social and religious customs, personal

observations and ideology, readers have such a satisfactory amount of flexibility to fully comprehend and assemble the writer's stylistic choices. This is based on their own relevant context, bearing in mind the choices made by the narrator and his implicit assumed aspirations. Having no right to read a drama, for example the classic Greek drama *Oedipus Rex* (an Athenian tragedy by Sophocles 429 BC), if readers simply interpret it only in terms of the writer's social insights and implied intentions. This would pretty much end it as a masterpiece of art, disregarding readers' schematic knowledge and social expectations, a challenging question has been provided by Douglass in this regard. He (2014: 13) says that:

> readers only have the author's words, and they supply meaning to those words. They do not have the author's mental acts, and so never know what the author intended to say. How could readers ever create such from the marks on the page?

Answering the question mentioned above, the readers' ideological and cultural surroundings and experience might be a preferable way to approach the texts they read. This is because *stylistics* was originally devoted to deal only with one-direction reading; that is, reading the culture and values displayed by the text solely, as if it were a world in and of itself. This is no longer the case in contemporary stylistics, particularly *cognitive stylistics*. Stating the overwhelming advantage, it is the reader where the focus should turn to. This is due to the fact that reading literary works should be based not only on the mindset, culture, traditions, and ideology of the author, but also on what is in the reader's bucket (see Section 2.7).

The linguistic cues on the page are indeed the same. Yet what is running within the reader's head varies from one reader to another, and

no reading would ever remain exactly the same as another, and no reader would ever be the same as what s/he was the moment before (Torry, 2022: 31). In other words, "reading experience is a dialogue between the text and the reader" (Holland, 1973/1975, cited in Aransáez, 2014: 84). In order to fulfill his/her identity theme, the reader builds his/her own fantasies, defenses, and meaning through his/her own usage of textual material. This was accomplished, by Holland's description, via the findings of a brief investigation of three readers' responses to one poem by H. D. (Hilda Doolittle), which demonstrates that each reader generates a distinct interpretation for the poem based on his or her identification pattern (ibid).

Furthermore, several studies, see Oakhill and Yuill, 1996; Cain and Oukhill, 2007; Hulime and Snowling, 2011; Egidi and Caramazza, 2013; Helder et al., 2016; Hagoort, 2019; and Aboud et al., 2019, show that there are certain difficulties at the *schema level*, which can substantially limit comprehension. These difficulties, regarding text comprehension, might emerge under two conditions. First, the reader may lack an acceptable schema, and second when s/he is unable to trigger the suitable schema s/he does already have (Aaron, 1994: 79).

Delving thoroughly into the major interest of the study, text comprehension and/or interpretation, particularly of literary works, occasionally deviates from the expected norms. A deviation like this might occur as a result of processes happened to occur not only inside the comprehension system (see Figure 10), but also inside the linguistic and schematic knowledge systems (see Figure 11). Literary works, for example, are syntactically complicated and occasionally ambiguous. Each of which affects sentence comprehension.

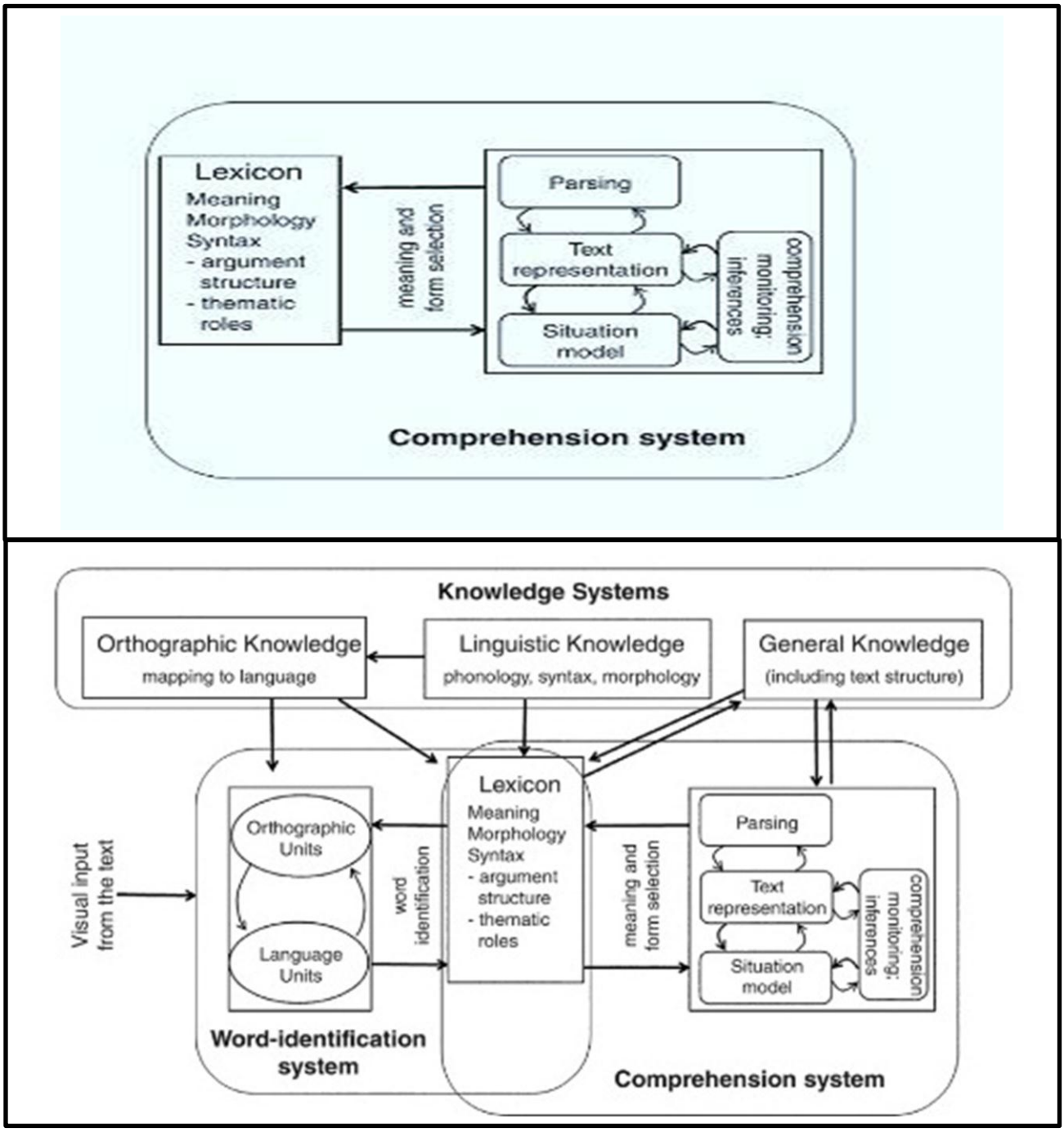


Figure 10 The Reading Mechanisms Framework, Modified from (Perfetti and Stafura, 2014: 24).

Consequently, there will be a failure in making the appropriate inferences, threatening sentence comprehension and textual coherence. Thus, a text with no schematic knowledge available to the reader would threaten the global text interpretation. However, an author's aesthetic

foregroundings or deviations (see Section 2.7.1, Mind Style and Cognitive Stylistic Relativity) are not as easily identified as the syntactic complexity or ambiguity of a text.

A deviance in word recognition mechanisms might extend to cause deviations in sentence and text comprehension as a whole. More significantly, the lexicon (the mental dictionary stored in people's heads) is a critical vital area in the network, providing its output as well as numerous layers of detail about the text being read to the comprehension and/or interpretation system.

A deviance, at this phase, has *downstream* ramifications. This is a cognitive description of what might go wrong for almost any reader of a literary work. Nevertheless, this cannot be applied to a talented reader because s/he can help resolve comprehension failures. Saying that almost any reader but not all readers indicates that the normal range of reading proficiency does not include those with defective comprehension processing subsystems (i.e., language impairments). This is because such deficits might have an impact on many linguistic knowledge sources and processes.

Due to what has been mentioned so far, knowledge of word recognition (orthography), meaning of words (vocabulary awareness), language/linguistic levels (syntax, morphology, etc.), and conceptual/ schematic knowledge, all work together to enable effective comprehension/ interpretation. If the matter goes around differently, a deviation may occur and readers consistently fail to comprehend the text they read (Nation, 2005: 249).

This clearly indicates that individuals, who have an effective word-identification technique but keep failing in interpretation, may simply lack essential data. Put simply, readers may deviate certain things schematically so that the information in one's head is quickly actuated to

engage in inference-making and language comprehension during reading a particular text (ibid). As a concluding word, the reader has his/her own independent reading style that, ideally and cognitively, depends on stylistic concepts and patterns in the interpretation of a particular text. Sometimes, reading a text might lead to false interpretation as a result of a deviation happens to occur in reader's schematic knowledge. This will be clearly demonstrated in the following chapter, where Cook's model of *Discourse Deviation* will be tackled to determine how and why SKD exists cognitively.

3.8.4 The Writer's Style and Bias in Narration

Taking a close look at the writer's quandary with bias in writing, the writer's task has been mistaken as unbiased; the writer is wrongfully thought of as a middleman among various communities who, in order to fulfill his/her task at hand, must be neutral. This is most emphatically not the case. The writer is a sociable person in the sense that he or she belongs to a particular society, has certain religious beliefs, sensations, an ethnic background, complexities and peculiarities, mental, interpersonal, and aesthetic criteria, viewpoints, political matters and biases, stylistic choices, and so on.

Under a great deal of pressure, the writer bears principal responsibility for the text s/he creates in general and the readership in particular. It is challenging to imagine anything other than a biased writer in the midst of such infinite ever-changing and constructing intricate details and biases. Being involved in stylistically cognitive framework to writing, the writer is always biased whether readers realize it or not:

"Authors almost always have a definite bias about which titles they do and don't like, especially for their own work" (Le Peau, 2019: 110). Accordingly, Mihesuah (2004: 148) states that narration reveals not only

the writer's bias, but also his/her political interests and nationalistic fervor. But, *does the so-called 'bias' give a negative indication?*

Each author sheds a distinct light on a particular topic, bringing with them a distinct set of biases. Such biases are not necessarily negative; people's behaviours, observations, and opinions are what make everybody more remarkable (see Fisher et al., 2015).

APA (2020: 131), American Psychological Association, has a different viewpoint: writing requires accuracy, lack of bias and completeness. However, the writer's bias is unavoidable, especially in certain texts, contexts, and situations. One, for example, can take the lexical choices of a literary text, (i.e., the choice of words why does the author choose this word and not that word?), for the sake of making a cognitive stylistic analysis. It follows from this that *lexical choice*s may reflect the author's bias, that is often inevitable in certain contexts (e.g., the distinction between denotation and connotation usually influence the choice of words), see Helder's (2011: 148-9) *Textual Analysis*.

In this respect, LiveABC (2022: 57) addresses four interesting questions to recognize a writer's bias:

1. Is there any subjective language in the text?

   This is done by investigating a writer's verbs, adverbs, and adjectives for subjective language, such as calling something "perfect".

2. How does an author include uncited viewpoints in his\her writing?

   In such cases, a remark is constructed in such a way that it would seem to be a fact without the writer directly says that it is a fact.

3. Does the author make any assumptions?

   Rather than revealing only what can be backed up by evidence, an author may suggest certain things belonging to others' ideas, emotions, or intentions.

4. Does the author employ logical fallacies?

   Logical fallacies are reasoning errors that are focused on faulty reasoning. The "chemy-picking fallacy," for example, takes place only when details that support a debate is found within a specific text rather than the entire picture of the text itself.

Drawing a final conclusion of the preceding debate, the writer/author is subjected to a variety of mental, sociocultural, political, religious, ideological, ethnical, linguistic, and individual influences and pressures. Consequently, he/she cannot shield himself/herself from such key variables both within himself/herself and in the external community, or s/he will be ivory towered.

Besides, the writer's bias is unavoidable, particularly in certain literary texts. Such a bias can indeed be favorably reasonable, deeply involved to portray the writer's intervention only when essential, beneficial, valid, and actually needed for the aforementioned variables. Misapplying it for subjective, intuitive, or highly offensive purposes, on the other hand, would really be unjustifiable and brushed aside as completely pointless.

3.9 SKD

Drawing a mental representation of a real-world pattern (or certain elements of it) incorrectly leads to failures or deviations that are even worse in terms of an individual's schematic knowledge. These are issues of pattern-oriented design validation; one may measure the cognitive usefulness of a pattern representation by essentially evaluating whether real-world structures truly express the specified pattern or not. Such an issue is left for linguistic researchers, and it might go even further to address a very challenging question: *How can one measure the accuracy of a schema?*

Individual judgment, on whether a schema is acceptable or unacceptable, is one of the obstacles in measuring accuracy. This might be because of the nature of human mind, which creates schemata for all sorts of recurring schemata, even the very inappropriate ones. Such schemata are deemed to be "anti-patterns" or "dysfunctional patterns" (Buschmann et al., 2007: 40).

Rethinking of the CAR schema, one can understand what may go wrong with information extraction, both informally and formally. Initiating an individual's CAR schema, s/he may claim that a car basically has four tires, a driver's seat, passenger seats, and a body. These sub-schemata may leave out certain key components.

As a matter of fact, such a configuration is indeed a recurrent structure established in all (cars), and hence is a potential schema an individual automatically chooses as an optimal candidate. The challenge here is that this four-part schema (the car) is woefully inadequate. It lacks essential parts like the steering wheel, brakes, engine, fuel tank, and many others. In other words, a car is not much of an appropriate type of schematic pattern to be chosen if it doesn't have brakes. One may be aware that a car needs certain schemata yet fail and/or deviate to make this clear.

Going deeply to dig up CAR schema details, another person solely sees cars with gear sticks. S/he may determine that the stick is part of the car schema. However, cars with sticks are no longer exclusively an option; automatic vehicles are now available, in addition to robot cars. The same goes with car's trunk. A car without the need for a trunk is still a car, therefore the trunk is just an optional element. If the individual just

saw cars on roads, like all people did, one might argue that roads are also component of the CAR schema. But they are not, are they?

Cars, in fact, can exist without roads, and roads do not solely service cars. ROADS are an isolated schema that occurs frequently in combination with cars. As a result, CARS ON ROADS is undoubtedly another schema because it is so convenient to drive on roads. Nevertheless, in the individual's mentality, *cars* and *roads* may be connected. For this individual, roads have always been part of his/her CAR schema, existed implicitly in his/her mind.

Furthermore, determining the proper abstraction degree is challenging. There should be a matter of wondering if there exists a broad class of vehicles or whether each unique car category should be regarded as a distinctive schema. Take a race car and/or a family van as an example, they both have numerous similarities but also considerable distinctions. What if the matter goes differently to deal with trucks, ambulances and even busses? Each of them represent distinct schemata, yet they are essentially varieties of the CAR schema.

The same can be applied to literary works. While reading a literary text, readers' schematic knowledge may be deviated, leading to cause "unusualness" (Scarinzi, 2008: 144).

Working hand in hand, *schema theory and cognitive stylistics*, with each other gives an indication that the unusualness and/or deviation can be identified *as a cognitive stylistic marker applied to the schematic knowledge of readers*. Schema deviation is a keystone of **literariness**, at least of what is ordinarily interpreted to be aesthetically valuable literature. It covers all types of schemata, including world schemata, text schemata, and language schemata. Hence, readers' background/

schematic knowledge configurations about the world, as well as the association and patterning of discourse, are likely to be affected (Piata, 2016: 232).

The reader is more inclined to correct schema deviation by trying to accommodate his/her currently existed knowledge resources and correlations of discourse processing if s/he is genetically programmed to such a deviation. "If left unresolved, however, schema [deviation] may lead to confusion and fuzziness" (ibid).

Finally, choosing an ideal schematic level relies somewhat on specificity appropriate for the intended group. If a schema dives deeply further into details, it is beneficial to characterize each object as a standalone schema. Consequently, many versions might have to be incorporated and listed in one large basket of description. On the contrary, if the chance of these versions is little, each variation will count as a new schema causes *schema explosion* or *schema-refreshing* (see Section 3.3). The latter may enter the zone of deviation, and hence this new schema probably fails to satisfy the basic objective of the designed patterns (i.e., already existed schemata).

Rounding off this chapter, schema theory is an effective way for explaining why different readers produce different interpretations of the same text. To this end, schema theory can be applied cognitively to deal with *schematic knowledge deviation* (see also Section 2.7.3) of the literary texts, and thus can be used as a cognitive stylistic marker. The next chapter is going to tackle the methodology of the study under investigation. A study of this kind will use a developed model and be designed in the form of a clear diagram.

Chapter Four

Schematic Deviancy and Methodology

After conducting an in-depth examination of how *Schematic Knowledge* can be deviated and cognitively identified as a *Stylistic Indicator*, the current study is now prepared to tackle schematic deviancy and its methodology. This chapter discusses some key points regarding the fundamental steps that any researcher, interested in cognitive stylistics and particularly in schematic deviation, should take in order to satisfactorily construct his/her own framework. Each step would be presented as a standalone unit in the expectation that researchers will fully comprehend how a schematic deviation can occur and what guidelines should be followed to determine such a deviation.

As for why this study starts this chapter with 'Schematic Deviancy'[2], it is due to the fact that no study has been done so far to determine *SKD* when reading a literary text. This makes the study under investigation appears for the first time within the studies of *cognitive stylistics*.

Such a terminology further adds another type of schema to the ones discussed previously (see *3.6*). Using **schematic deviancy** lens, the current study will hopefully help future researchers better understand the way in which schematic knowledge deviation occurs during reading. Consequently, the methodology used here is of its first kind to aid cognitive stylistic researchers gain in-depth knowledge about SKD.

[2] Schematic Deviancy is a cognitive stylistic term, which refers to the way readers' schematic knowledge deviates from the literary words of an author.

4.1 Literariness or SKD

What matters here is the conceptual term "literariness" or "SKD", which has also been re-identified using schema theory as part of the crucial focus of schematic textual understanding. Cook (1995: 10) considers cognitive deviation to be an absolutely vital characteristic of literariness. He (ibid: 23) further asserts that literariness must be adapted to include a range of cognitive characteristics of text processing instead of remaining strictly limited to specific linguistic and authoritative characteristics of language use.

Consequently, *literariness* rises up as a result of an interaction that happens between the text structural and linguistic layers, in addition to the conceptual or schematic level. Such an interaction is made available by the schematic competency readers need to use for the sake of interpreting the text they read.

Besides, deviations on the linguistic levels may simply be an outcome of deviations on the schematic level (ibid: 10). This interaction is referred to as "discourse deviation".

Emphasizing the core task of literary works, it most definitely goes around the cognitive change (ibid: 11). Literature is accompanied not merely by interpersonal or ideational functions, but also by another challenging function related to schematic shift. Entailing the destruction of old schemata, the creation of entirely new ones, or the modification of pre-existing ones, all are held by the schematic change that happened when reading literary works. Understanding any text, whether literary or non-literary, highly depends on the management/ activation of certain noteworthy cognitive structures (i.e., schemata) (Semino, 1997: 123).

As a matter of fact, literary and non-literary works go through the same levels of schematic understanding, but the outcomes are indistinguishable. Clarifying how schematic cognition occurs within the ground of a non-literary text, consider the following: the text activates several appropriate schemata via certain "linguistic cues" or "textual headers" captured from the text itself, which further power up either one fixed schema or a set of schematic levels.

Throughout the final stage, the reader would therefore instantiate (a) schema(ta) by adapting the stimulated schema(ta) to what exists in the text (the textual input). Reading a novel like Alighieri's *Inferno* or Brown's, which is of a highly detailed description of 'H', a deviation may occur within the general schematic background of readers. This is due to the fact that readers always anticipate and expect every traceable detail to be neglected and dismissed in an ordinary schema instantiation. As a result, the novelist explicitly refers to some schematic configurations that elicit specific levels of detail or extractable standard components of a schema. Typically, these standard components are supposed to be evident in the mutual prior knowledge of both the readers and narrator, and thus are not made explicit but intuitively picked up (see Figure 12).

4.2 Schematic Levels of Detail

Typically, the level of detail is regarded as one of the issues that schema theory must address. Having a unified bundle of information, a schema consists of several levels of abstraction and explanation (Tabakowska, 1993: 37). Instantiating a specific schema depends highly on retrieving it from readers' memories as a separate unit and applied to a specific additional explanation level within such a recovered unit. Schematically speaking, the selection of a fixed level of schematic clarification or of default details may be deficiently described (see Cook,

1995: 76). Thus, every schema integration appears to be broken and expanded between two edges: *schematization*– more abstract concepts and *explanation* more specified details (Tabakowska, 1993: 37).

However, a schema is composed of a network of numerous configurations and levels of schematic detail. Due to the hierarchical nature of the schema instantiation thresholds, a very challenging dichotomy is quite relevant in this regard. This dichotomy holds two unusual directions: overextended levels of detail and underextended level of detail (see 4.3 below). And hence, a schematic instantiation on a "higher level" may in itself become a schema for "lower level" instantiations", and so on (Tabakowska, 1993: 37).

Certain questions concerning the levels of schematic instantiation may be addressed here, posing a challenge to the workability of schema theory. These are:

- Why does the schematic instantiation process take place on multiple levels?
- What explains the motives for the writer's choice of levels of schematic detail?

Schema theory cannot sufficiently tackle the challenge posed by the questions mentioned above. This is due to the fact that schema theory is profoundly interested in information, (e.g., interested in the ideational function of language).

As for the motives for picking up one detail level over another, they are associated interpersonally with the function of language (Cook, 1995:76). Subsequently, a schema may appear to be a focal point at a certain level of abstraction and explanation. This is done according to

which levels of instantiation can move in two opposite paths: either towards less interpretation or towards more interpretation.

Specifying the main point of this dissertation, it is argued that the schematic challenge can be introduced into some literary works obviously by disrupting or interrupting the very expected and biased level of detail that is regularly ignited within a particular conceptual framework (i.e., schema). The argument is that the reader must sometimes determine not only which schematic knowledge is activated in this or that text-based area, but also which level of detail the schema distinctively initiates and why.

When it comes to works of literature, this sort of schematic expectation/ background could indeed be disrupted and failed in two directions: either by activating abnormally *unlimited and overextended levels of detail* or by activating uncommonly *limited and underextended levels of detail*. In either case, the reader does not receive the expected level of information, so schematic deviation will take the lead. The following example can clearly show the way the level of detail is used in Alighieri's *Inferno* for the sake of achieving a sort of **schematic cognitive deviancy**:

"I can't refuse to answer what you ask:
I am set down so far because I robbed
The sacristy of its fair ornaments,
And someone else was falsely blamed for that."
Canto XXIV, 136-139

The textual/ linguistic headers, in the text mentioned above, trigger INJUSTICE SCHEMA: *refuse*, *set down*, *robbed*, falsely, and *blamed*. What comes after is a representation of a hierarchy of various levels of detail involved within INJUSTICE SCHEMA:

- I can’t be silent
- I can’t avoid what you asked me about
- I can’t close my mouth
- I can answer your question
- I reply to his question
- I am set down
- I am broken
- I am so bored
- I am suffering from something I didn’t do
- I feel guilty
- I stole something
- Someone has to suffer because of wrong accusations
- The one who is guilty of the wrong act will not be punished
- The one being blamed will be punished
- A crime that I didn’t commit
- My dignity is broken

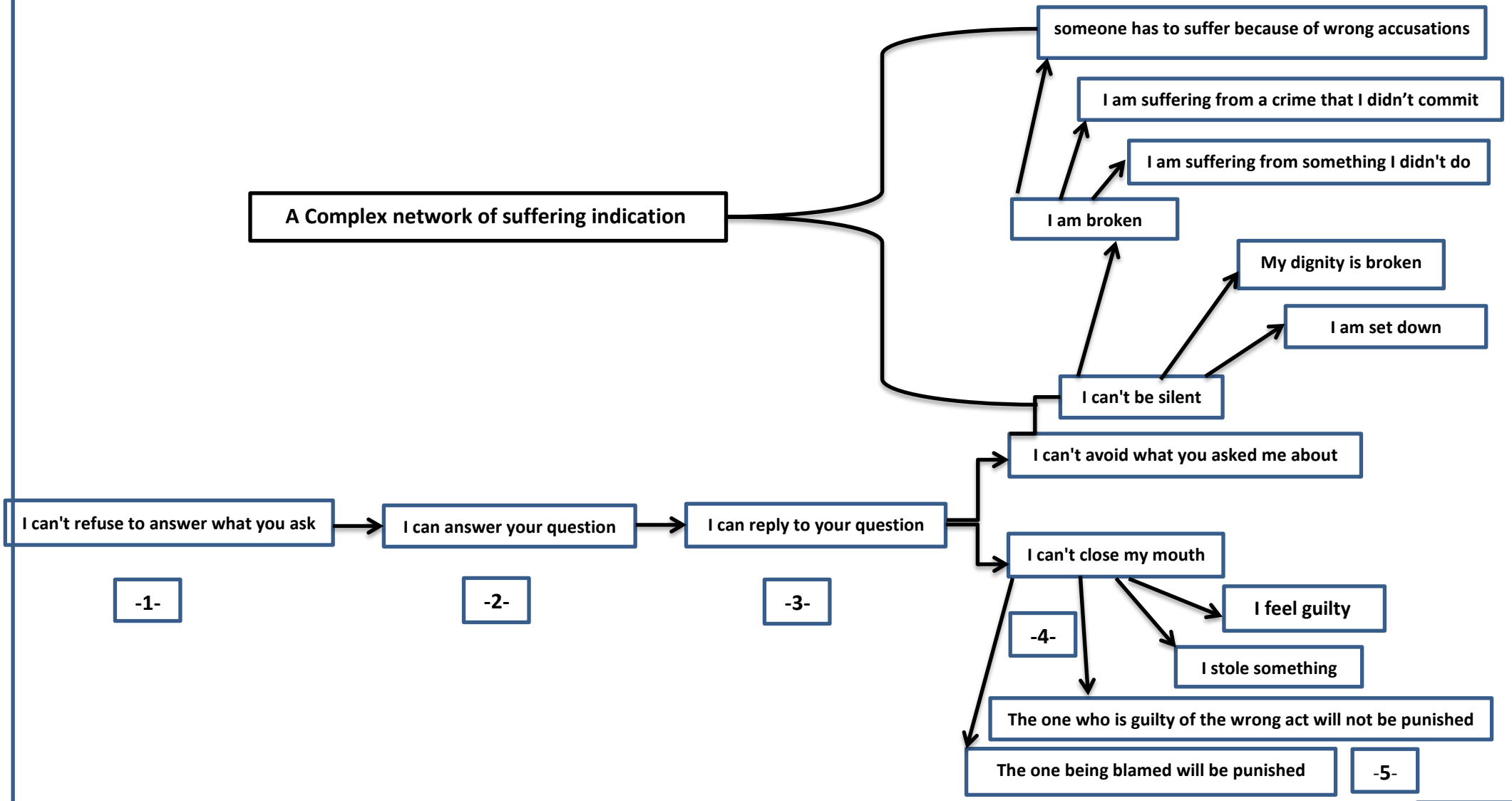


Figure 11 Schematic Deviancy of INJUSTICE Schema Triggered in Dante Alighieri's *Inferno*

However, inferno is not only about people, who commit certain sins, go directly to hell and thus suffer from it. Rather, inferno might have various schematic challenges deviated from the reader's pre-existing schematic background. One of them is 'injustice schema'—the second phase of inferno. The levels of detail, mentioned and drawn in Figure (12) above, lead to *injustice schema*, breaking one's spirit and causes him/her to suffer as if s/he were in Inferno (i.e., hell). All these levels of detail go against the readers' linguistic knowledge bringing a sense of surprise, and hence they are *overextended* in the sense that they go beyond what the author/ writer has mentioned in his textual piece of literature.

4.3 Schematic Deviancy Model

Readers are always exposed to a key mental disruption of instantiation or schematic approval process when reading a piece of literary work. Such a disruption entails a total change or deviation to one's configuration of schemata. Analyzing literary texts on such a cognitive ground is basically suggested by Cook (1995) in his model of 'Literariness' or 'Discourse Deviation', giving it its own remarkable feature of the literary status a text might gain.

With the modified cognitive components done to such a model, Peter Stockwell (2002) later assimilates Cook's (1989, 1992, and 1995) terms, those of 'schema reinforcement', 'refreshment' and 'literariness', to produce other modified terms concerned with *schematic management*; these are schematic restructuring, preservation, accretion and disruption. Having a fair amount of information about the textual headers a text might provide, Elena Semino (2014b: 136) addresses the idea that:

> [Schemata] are activated by headers, i.e. textual references to entities and actions related to the script. Headers may be more or less strongly

> associated with a particular [schema], and therefore vary as to their predictive power.

According to her (ibid), four categories of textual headers have been identified as follows:

1. **Precondition headers:**
   These are references that act as a precondition for recalling a schema.
   (e.g., Jack imagined a hotel room).
2. **Instrumental headers:**
   These are references to actions that are a means toward the realization of the intended schema.
   (e.g., Jack walked down to the hotel).
3. **Locale headers:**
   These are references to the setting (time and place) in which the schema usually applies.
   (e.g., Jack stood in the hotel reception room).
4. **Internal conceptualization headers:**
   These are references to action or role from the schema.
   (e.g., Jack rented a room).

All of these linguistic/textual headers help readers determine which schema has to be used cognitively in a given situation, leading to provide multiple levels of schematic knowledge (either overextended levels of detail or underextended levels of detail, see Section 4.2).

Cook's (1995) *discourse deviation*, Stockwell's (2002) *assimilation of schematic management*, Semino's (2014b) *classification of textual headers*, and most importantly *the levels of detail* a reader may expose, can all help in figuring out the responsive potential outcomes of de-familiarization much further than text analysis. Text processing, not just

text analysis, is hindered by de-familiarization. In a literary text, what may be managed to bring to de-familiarization is not only a linguistic component, but additionally a conceptual or cognitive component. As a result, the de-familiarized cognitive component is identified as such as a matter of fact of the cognitive deviation it provokes against the scope of regular expectation readers habitually use in text processing.

Putting all these models in one basket—Cook's (1995) *discourse deviation*, Stockwell's (2002) *assimilation of schematic management*, Semino's (2014b) *classification of textual headers*, and *schematic levels of detail* discussed in section (4.2) above, a **Schematic Deviancy Model** can now take its own defining characteristics. Shaping it to have its accurate definition, it is all about *a multidimensional construct wherein linguistic and structural deviations in a text document are closely linked to conceptual or schematic deviations formulated in the reader's schematic knowledge*. That is, a linguistic deviation (i.e., the output) must directly correlate with a deviancy at the cognitive level of readers' schematic knowledge (i.e., the input). Figure (12) below draws the proposed Schematic Deviancy Model.

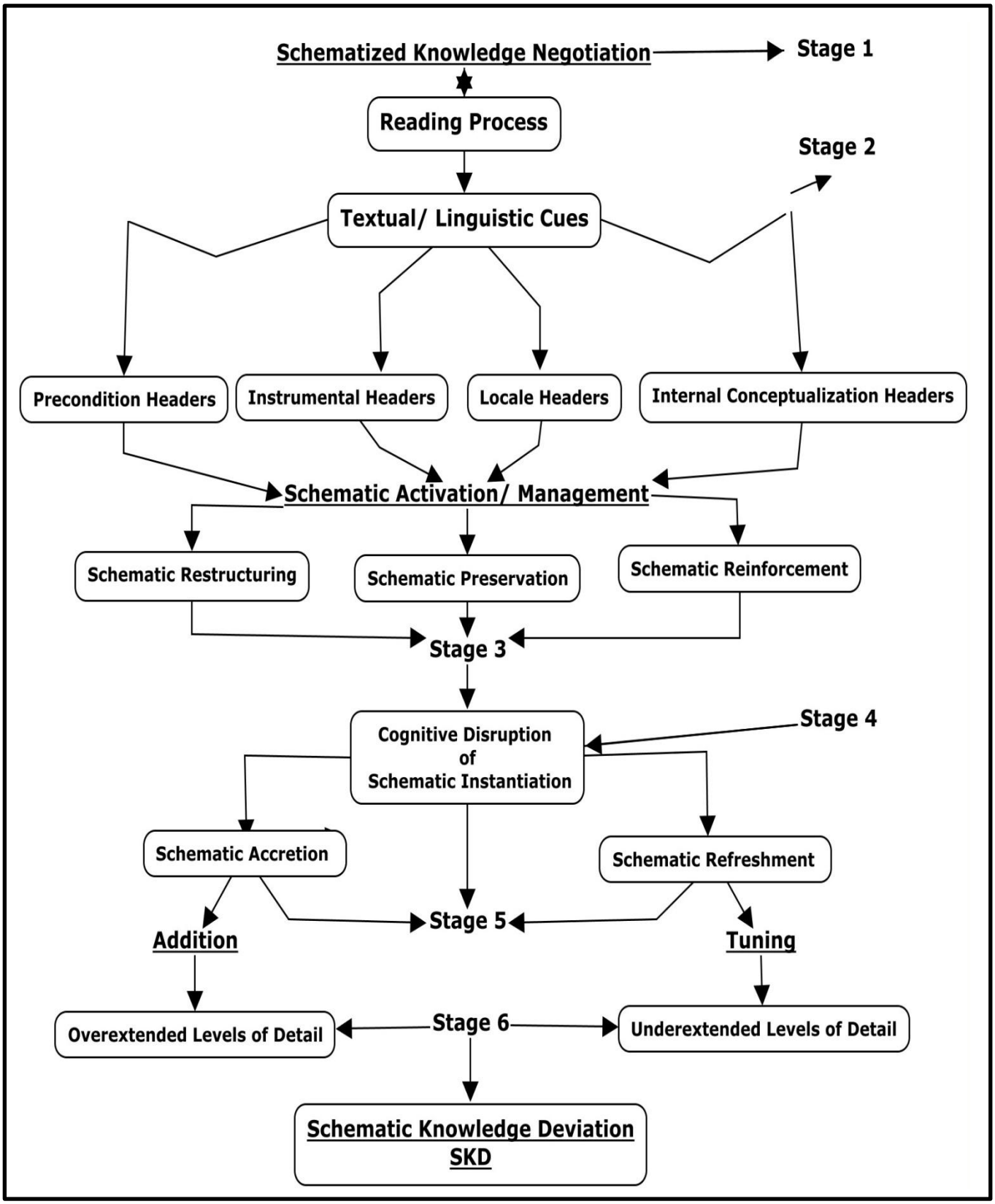


Figure 12 Schematic Deviancy Model

According to the diagram (Figure 12) above, readers are engaged with the text based on the author's textual words when reading. They are, in fact, able to negotiate their schematic knowledge with the author's textual words (Stage 1). Linguistic cues are these textual words. They play a crucial role in activating and managing readers' schemata stored in their memory (Stage 2).

To reach the schematic activation/management area, readers, who are really able to read, would go through three fixed processes (Stage 3), which are classified as follows:

1. **Schematic Restructuring:**

   During reading, readers create new schemata based on their pre-existing knowledge templates.

2. **Schematic Preservation:**

   As readers continue to read, they would learn more facts from the text (e.g., a literary work)—facts that only fit their existing schematic knowledge.

3. **Schema Reinforcement:**

   Keep on reading and engage intensely in the text, readers' incoming facts would be enhanced. As a result, their schematic knowledge will be strengthened and confirmed.

Moving on to the next area (Stage 4), cognitive or conceptual deviance here poses a potential challenge to readers, disrupting their schematic instantiation. Such a challenge can be managed in two distinct ways (Stage 5): schematic accretion (i.e., readers here add more new facts to their schematic knowledge in order to broaden their explanatory range) or schematic refreshment (i.e., here, readers modify the facts or relations

with a particular schema). Reaching stage (6), schematic accretion would give *overextended levels of detail* (unlimited or generalized levels). As for schematic refreshment, it would provide *underextended levels of detail* (limited or specified levels). In either case[9], a total change or deviation (Stage 7) will undoubtedly occur to the readers' configuration of schemata.

4.4 Research Design

This study employs a qualitative design and a quantitative content analysis research method. It is one of many research methods for analyzing and quantifying textual data. Content analysis is a popular qualitative research technique that is used to identify not only the presence of specific patterns and words, but also concepts in qualitative data (Stemler, 2015: 7). This method is valid for analyzing literary works because researchers can examine the meanings and relationships of specific words, patterns, and concepts. Using such an approach allows researchers to draw conclusions about the messages, the writer's writing style, the readership within the texts. Not only this, it could go even further to handle the culture and time surrounding the text (ibid).

Engaging with quantitative content analysis, it is frequently displayed through using certain provisions, namely credibility, dependability, conformability, transferability, and authenticity (see Krippendorf, 2018: 26). The quantitative content analysis helps researchers to accurately measure and characterize the structures and conceptual frameworks that have emerged from the qualitative data. This also goes hand in hand with answering the research questions

[9] These levels of detail are conceptualized in readers' schemata as the expected levels of information. They go against the narrator's textual samples and his intended message, hence a schematic deviation will take the lead.

convincingly while guaranteeing the trustworthiness of the research process (ibid).

Quantitative content analysis research, however, concentrates on the qualities of language as an information exchange with an express intent to the text's experiential or content interpretation. As far as this study is concerned, quantitative content analysis will be used linguistically to quantify and identify the patterns and concepts that have emerged cognitively from readers' schematic knowledge. This will be done via measuring the side-effects of readers' schematic knowledge deviation on a linguistic level.

4.4.1 Research Objective

The purpose of this study is to prove how schematic challenges can be depicted by unlocking specific levels of schematic de facto components all over the cognitive map of readers' prototypical schematic templates/ expectations. The activation of such levels of information occurs as a result of a cognitive process of de-familiarization via a sort of schematic deviancy. Such deviancy tends to raise several levels with more or less degrees of over-specification or under-specification processes.

Nonetheless, a schematic challenge does not necessitate the destruction of old cognitive structures or the creation of new ones. Rather, it entails purely activating surprising levels of detail within readers' background knowledge toolkit.

The proposed *Schematic Deviancy Model* will be applied to the two *infernos* in order to find out where SKD is and how it apparently occurs.

4.4.2 Research Trustworthiness

One way for researchers to persuade themselves and readers that their study results are worth paying attention to would be through trustworthiness. Lincoln and Guba (1985) developed the notion of trustworthiness by incorporating four techniques used for evaluating and accomplishing the trustworthiness of a study. These are: credibility, dependability, conformability, and transferability.

4.4.3.1 Credibility

The confidence in how well the data address the intended focus is referred to as *credibility*. However, the researcher should give careful consideration of how to collect the most appropriate data for content analysis. The strategy for ensuring the trustworthiness of data analysis begins with selecting the best data collection method to answer the study's research questions (Lincoln and Guba, 1985: 213).

4.4.3.2 Dependability

The central issue of dependability is that the manner in which a study is carried out should always be consistent over time, research scholars, and analysis procedures (Cope, 2014: 94).

4.4.3.3 Conformability

Conformability is aimed at ensuring that the researcher's interpretations and conclusions drawn are evidently obtained from the data, which necessitates the researcher illustrating how inferences and interpretations were managed to reach. Conformability is created once credibility, transferability, and dependability are all accomplished (see Guba and Lincoln,1985:73).

4.4.3.4 Transferability

The generalizability of an investigation is referred to as transferability. It seeks to show whether the results can be applied in other contexts or not (Connelly, 2016: 435). Because of the qualitative nature of this study, the transferability of the research results is cautiously examined.

In terms of the research trustworthiness, the data of this study align with the criteria of credibility, dependability, conformability, and transferability, as follows:

1. **Credibility**:
    - The data collection process is described, including downloading the data from a reliable source (www.gutenberg.org) and ensuring the digital texts are exact copies of the original ones.
    - Trustworthy sources (James Roberts and Nikki Moustaki's critical notebooks and Michael Haag and Greg Ward's Decoded *Inferno*) are used to identify the opening lines and support the claims and interpretations made expectedly by the most readers and novelists.
    - The selection of data samples is done qualitatively and representatively, enhancing the credibility of the study.
2. **Dependability**:
    - The data collection, modification, and analysis procedures are outlined, providing transparency and allowing for potential replication by others.
    - Sequential sampling is employed for dividing the samples, allowing for the possibility of verification and reproducibility.

3. **Conformability:**
    - The procedures followed for designing, unitizing, sampling, reducing, graphic sketching, and calculating are described, ensuring systematic and documented steps are taken.
    - The use of software tools like WordSmith Tools and Cmap Tools contributes to objective data analysis and visualization, minimizing potential biases.
4. **Transferability**:
    - The description of data collection and analysis procedures enables other researchers to understand and potentially replicate the study in their own contexts.
    - The use of widely available software tools (WordSmith Tools and Cmap Tools) enhances the transferability of the analysis methods.

By considering these aspects, the study demonstrates efforts to uphold credibility, dependability, conformability, and transferability of the data, thus contributing to research trustworthiness.

4.5 Sampling Methodology

Most linguists might very well prompt their great attention forward into non-probabilistic sampling procedures while choosing their own data. *Sequential sampling* is one of these procedures (see Hussein and Al-Sahlani, 2019: 99). It refers to a non-probabilistic sampling technique in which the researcher chooses one set or group of raw materials at a specific point in time, investigate them, interprets their results, and then chooses another set of materials if needed. Such a technique affords the researcher with an infinite number of possibilities to modify his methodological approach and obtain a critical perspective on the study he is constantly seeking for (ibid: 100).

As a matter of fact, sequential sampling provides the advantages[10] listed below.

1. When using this sort of sampling, the researcher has the entire authority over the length of the samples. Depending on the researcher's decision-making process, the sequence of text-based samples may be fairly short.
2. Because of the frequency in which this sampling procedure is used, it allows the researcher to enhance the research methodology, interpret the results, and end up making minor adjustments and improvements to rectify and refine the research methodology.
3. Using this sampling technique, the researcher would then dedicate teensy time and effort in sampling his data since it is not complicated, time-consuming, or necessitates an extensive workforce.

Taking the benefits mentioned above into consideration, this kind of sampling procedure is applied throughout the current study for analytical purposes. As a result, the researcher selects his digital samples sequentially, precisely the first lines (i.e., the opening lines) of 20[11] chapters extracted from the two *Infernos*, see Table (1) below:

[10] For more information, these advantages are taken from Hussein and Al-Sahlani's (2019) Translation Assessment and Lexical Loss.

[11] 20 chapters (10 chapters is sequentially picked up from each novel, the total is 20 chapters) will be analyzed for the sake of finding out where *schematic deviancy* is.

Table 1 Data Description of the Two *Infernos*

Sample NO.	Dante Alighieri's Inferno	Dan Brown's Inferno
	The Opening Lines of the Two Infernos Taken from the First Ten Chapters	
1	MIDWAY upon the journey of our life, I found myself within a forest dark, For the straightforward pathway had been lost. Ah me! how hard a thing it is to say. What was this forest savage, rough, and stern, Which in the very thought renews the fear.	I AM THE Shade. Through the dolent city, I flee. Through the eternal woe, I take flight. Along the banks of the river Arno, I scramble, breathless turning left onto Via dei Castellani, making my way northward, huddling in the shadows of the Uffizi. And still they pursue me.
2	DAY was departing, and the embrowned air Released the animals that are on earth From their fatigues; and I the only one. Made myself ready to sustain the war, Both of the way and likewise of the woe, Which memory that errs not shall retrace.	The memories materialized slowly, like bubbles surfacing from the darkness of a bottomless well. A veiled woman. Robert Langdon gazed at her across a river whose churning waters ran red with blood. On the far bank, the woman stood facing him, motionless, solemn, her face hidden by a shroud.
3	THROUGH me the way is to the city dolent; Through me the way is to eternal dole; Through me the way among the people lost. Justice incited my sublime Creator; Created me divine Omnipotence, The highest Wisdom and the primal Love.	I'M IN FLORENCE!? Robert Langdon's head throbbed. He was now seated upright in his hospital bed, repeatedly jamming his finger into the call button. Despite the sedatives in his system, his heart was racing.
4	BROKE the deep lethargy within my head. A heavy thunder, so that I upstarted, Like to a person who by force is wakened; And roundabout I moved my rested eyes, Uprisen erect, and steadfastly I gazed, To recognise the place wherein I was.	Five miles off the coast of Italy, the 237-foot luxury yacht The Mendacium motored through the predawn mist that rose from the gently rolling swells of the Adriatic. The ship's stealth-profile hull was painted gunmetal grey, giving it the distinctly unwelcoming aura of a military vessel.
5	THUS I descended out of the first circle. Down to the second, that less space begirds, And so much greater dole, that goads to wailing. There standeth Minos horribly, and snarls; Examines the transgressions at the entrance; Judges, and sends according as he girds him.	For an instant, Langdon felt as if time had stopped. Dr. Marconi lay motionless on the floor, blood gushing from his chest. Fighting the sedatives in his system, Langdon raised his eyes to the spike-haired assassin, who was still striding down the hall, covering the last few yards toward his open door.

6	AT the return of consciousness, that closed Before the pity of those two relations, Which utterly with sadness had confused me, New torments I behold, and new tormented Around me, whichsoever way I move, And whichsoever way I turn, and gaze.	The shrill ring of his phone drew the provost's gaze from the calming mist of the Adriatic, and he quickly stepped back into his stateroom office. It's about time, he thought, eager for news.
7	"PAPE Sat`an, Pape Sat`an, Aleppe!" Thus Plutus with his clucking voice began; And that benignant Sage, who all things knew, Said, to encourage me: "Let not thy fear Harm thee; for any power that he may have Shall not prevent thy going down this crag".	LANGDON felt firm hands lifting him now … urging him from his delirium, helping him out of the taxi. The pavement felt cold beneath his bare feet. Half supported by the slender frame of Dr. Brooks, Langdon staggered down a deserted walkway between two apartment buildings.
8	I SAY, continuing, that long before ,We to the foot of that high tower had come, Our eyes went upward to the summit of it, By reason of two flamelets we saw placed there, And from afar another answer them, So far, that hardly could the eye attain it. And, to the sea of all discernment turned, I said: "What sayeth this, and what respondeth That other fire?	LANGDON shed his bloody hospital gown and wrapped a towel around his waist. After splashing water on his face, he gingerly touched the stitches on the back of his head. The skin was sore, but when he smoothed his matted hair down over the spot, the injury all but disappeared. The caffeine pills were kicking in, and he finally felt the fog beginning to lift.
9	THAT hue which cowardice brought out on me, Beholding my Conductor backward turn, Sooner repressed within him his new colour. He stopped attentive, like a man who listens, Because the eye could not conduct him far Through the black air, and through the heavy fog.	LANGDON'S eyes shot open, and he drew a startled breath. He was still seated at Sienna's desk, head in his hands, heart pounding wildly. What the hell is happening to me? The images of the silver-haired woman and the beaked mask lingered in his mind. I am life. I am death. He tried to shake the vision, but it felt seared permanently into his mind. On the desk before him, the playbill's two masks stared up at him.
10	NOW onward goes, along a narrow path Between the torments and the city wall, My Master, and I follow at his back. "O power supreme, that through these impious circles Turnest me," I began, "as pleases thee, Speak to me, and my longings satisfy.	BELOWDECKS on the luxury vessel The Mendacium, facilitator Laurence Knowlton sat in his sealed glass cubicle and stared in disbelief at his computer monitor, having just previewed the video their client had left behind… The video shows a man calling himself 'the Shade', "soon you'll know what I left behind!".

4.6 Data Collection

Downloading the data from the World Wide Web, the study under investigation collects its digital texts from an authentic website, i.e., www.gutenberg.org. This website is the most reliable, among others, and has been chosen here for its well-known academic reputation. Two computerized novels, with the same title "Inferno" by Dante Alighieri and Dan Brown, have been sequentially sampled throughout the study. As for the choice of such novels, it was due to the following points:

a) The novels of Inferno, written by Dante Alighieri and Dan Brown, are considered two of the greatest classics that have ever been written in the field of literature.
b) Although it is very peculiar for literary texts to have the exact title of the text or even the story it offers, such a peculiarity attracts the researcher's attention to deal with such a concept for the sake of exploring where schematic deviancy might occur in reading. So, there is a need to differentiate the perspectives of the two authors to understand and appreciate the texts (see 4.7).
c) The two novels are chosen here for their most widely-read literature as both feature intriguing subjects that offer amazing presentations of society.
d) As stated by Das (2012), 'inferno' is a significant piece of literature which showcases a genuine portrait of society. From this, one can tell that people in general, including readers, are familiar with the society they live in. Thus, people's background knowledge holds a massive schematic network of social realities, and the two *infernos* offer them.
e) After diving deeply into the background of the two authors, it is interesting to analyze two works belonging to two different periods: one belongs to a medieval period (i.e., Dante Alighieri's

Inferno was published in 1314); the other belongs to a contemporary period (i.e., Dan Brown's Inferno was published in 2013). This is due to the fact that this study wants to measure the level of schematic deviancy in the two infernos (i.e., which novel scores the highest rate of schematic deviancy in reading, and which one scores the lowest rate!). Such a measurement will be accomplished via WordSmith Tools, specifically via the TTR toolkit (see Section 4.6.3).

4.6.1 Data Representativeness and Balance

It is extremely difficult to ensure representativeness and balance. A datum is considered representative if it is based on the entire language or a portion of it (Leech 1991, cited in Kennedy, 1998: 62). Taking into account what balance is aimed for, it focuses on the various text-types included in textual data. It is "intractable" (ibid: 63) within a written datum because texts come in a variety of genres such as fiction, non-fiction, books, journals, novels and so on. In this case, researchers must create rigorous techniques to achieve the goal of representativeness and balance (Sinclair 1991: 20, cited in Kennedy, 1998: 63). As a result, the data under scrutiny are representative in terms of the following characteristics:

1. The data under investigation have been subjected to a sequential sampling methodology.
2. In order to keep the data representative, the current study has decided to deal only with the opening lines extracted from the two Infernos, see Table (1).
3. The data are distributed equally over 20 samples: Dante Alighieri's opening lines of Inferno are distributed over 10 samples and Dan Brown's hold the same sample numbers, see Table (1).

4. Picking up the opening lines of the two Infernos is done representatively due to the fact that the data are bulky and large in size (i.e., Dante Alighieri's Inferno holds 377 pages; Dan Brown's Inferno holds 262 pages). If all the pages were explored, this would undoubtedly take too long a time to finish such a study. This, in turn, will break down the third advantage of sampling methodology (see point 3, Section 4.5).

In terms of balance, this study is balanced in that the digital texts (the two Infernos) belong to the same genre (i.e., both *Infernos* belong to the same text-type, which are novels).

4.6.2 Data Processing Via Cmap Tools Cognitively

After applying its proposed model qualitatively (see Figure 13), the study begins to interpret where and how the schematic knowledge deviation occurs. A similar step will be taken cognitively by diagramming the interpretations resulting from each sample using a very promising kit called **Cmap Tools**.

Cmap Knowledge Modeling Kit is a conceptual mapping software developed by the Florida Institute for Human and Machine Cognition (IHMC) (Cañas et al., 2004). IHMC, on the one hand, was established by Dr. Kenneth M. Ford, Dr. Alberto Cañas, and Dr. Bruce Dunn on the campus of the University of West Florida, in 1990. IHMC was one of the first academic research facilities to permit computer programmers, linguists, and cognitive psychologists to work collaboratively on human-centered data processing projects (Kenneth, 2010).

IHMC, on the other hand, is a forerunner in human-centered artificial intelligence (AI), computer-mediated learning, knowledge-based

systems and knowledge acquisition, natural language understanding, and AI principles. Henry E. Kyburg Jr., Clark Glymour, Pat Hayes, James F. Allen, Robert Hoffman, and Joseph D. Novak are the first IHMC scholars (ibid).

Through the Cmap tool kit, researchers can easily create diagrammatical endpoints chosen to represent people's concepts (see Figure (14) below). These endpoints can be connected together using lines and linking words (e.g., the textual headers provided in the text) to produce a network of interconnected interpretations readers may produce. Such a production reflects what readers have in their own bucket (i.e., their own schematic knowledge) with reference to a particular topic (see Cañas et al., 2014: 24). The software has been used in classrooms for educational purposes, research labs (Correia, 2012: 1981), corporate training (Desnoyers, 2011: 319; Bown, 2008: 34-5), and for the first time will be used intuitively to visualize what might a reader think of in generating certain possible interpretations triggered in terms of a particular topic, like *Inferno*. As a result, this study will employ such a software program in his study to visualize the over-extended and under-extended levels of detail resulted from the qualitative analysis. Using Cmap tools, hence, will provide a clear picture of where and how schematic knowledge deviation exists.

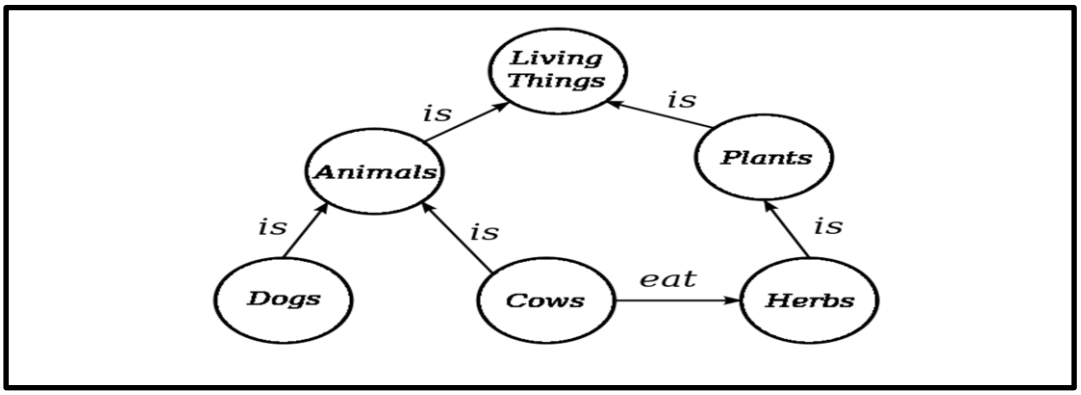


Figure 13 An Example of Conceptual Mapping of 'Living Things' Made by Cmap Tools

4.6.3 Quantitatively Processing Data Via WordSmith Tools

As mentioned earlier (see Section 4.3, Schematic Deviancy Model), *a linguistic deviation may be nothing more than a byproduct of the cognitive deviation that readers may employ to arrive at an interpretation when reading a literary text.* This definitely goes hand in hand with readers' schematic knowledge. In this regard, a byproduct like this can be statistically gauged via a very interested software program, known as *WordSmith Tools* (henceforth WS Tools). These tools are going to be used in this study for the sake of figuring out the type/token ratios (henceforth TTRs) triggered in each sample. These TTRs will be used specifically to measure the *linguistic deviation* that is resulted from the cognitive deviation occurred at the schematic level of readers.

However, WS tools were initiated by Mike Scott in 1996, primarily for the benefit of teachers and students of linguistics (Easterby-Smith et al., 2012: 191). It is so customizable since it can be used in a wide range of studies and for processing a large number of texts (ibid). WS is an effective application of schemes used for uncovering how textual words behave in texts (Scott, 2015: 2). It enables researchers to use specific tools, like TTRs, to determine how textual cues are employed in texts and what interpretations a reader may reach depending on such cues (ibid).

According to Kerswill (2013: 140), WS enables researchers to conduct a variety of language-based analyses, along with concordances, word frequency, prepositional phrases, and many advanced features, such as textual structures based on website pages, text transfer, and text processing (see Xiao and Hu, 2015: 58).

Besides that, Xiao and McEnery (2005, cited in Laviosa et al., 2017: 53) demonstrate that WS is a particularly useful indicator for genre

analysis. This type of application is based on the very basic foundation that digital packages of texts can be checked instantly (Evison, 2010: 122). As a result, it is a substantial software application with three key features (e.g., Concord, Wordlist, and Keyword) used in text-based data processing (Zhang, 2014: 53).

Since readers depend on the textual headers provided in a text to associate their interpretations cognitively, this study will use *WS Tools* to figure out the number of tokens, types and their TTRs counted for each sample. The use of such a software application will be applied before and after analyzing each sample cognitively. As for why this study uses such a software program, the researcher quantitatively wants to observe:

1. The tokens, types, and TTRs of the overall textual samples (20 samples). He, in this regard, would be able to compare the TTRs obtained from the textual samples before and after conducting the cognitive analysis. Because of the SKD is no more than a side-effect at a linguistic level, this study will hopefully provide reliable statistical evidence of SKD linguistically.
2. The degree of deviancy in each novel (i.e., which novel, in terms of its TTR values, scores the highest degree of linguistic deviancy over the other).

4.6.4 Data Modification

After Gaining the raw material, the researcher modified his own data by removing certain pieces of data, such as numbers, chapter titles, quotation marks, punctuations and footnotes. Each novel is then segmented into sequential samples. This is only done for the first ten chapters for each novel, specifically for the *opening lines*. The researcher, however, used an approximate number of opening lines (i.e., around 500 tokens in size) extracted from the two novels.

And down the line, this study has used two trustworthy sources to identify the opening lines of the two Infernos. These are the critical notebooks of Dante's Inferno by James Roberts and Nikki Moustaki (2001) and Brown's Decoded Inferno by Michael Haag and Greg Ward (2013). The two notebooks were used to determine each sample's size. That is, they are used here to ensure that the opening lines in each sample end at their proper bounds, with no falsified trimming in the middle of the sentences. In addition, these books are going to be used as authentic sources looking for the validation of the different interpretations readers may come up with.

Adopting Biber's (1993: 241-57) technique for segmenting definitive and representative text samples, the sampling data ended with an overall of (20) samples (i.e., 10 samples for each novel). Each sample holds an approximate number of tokens (around 50 tokens in size). As a result, the tables (2) and (3) below provide a detailed breakdown of the data used in this study.

Table 2 Data Description of the Two Infernos in terms of Their Tokens/ Types

Data Collection Statistics			
The Opening Lines of the Two Infernos			**Samples Total**
Alighieri's Inferno	**Tokens**	**Types**	**10**
	502	**270**	
Brown's Inferno	**Tokens**	**Types**	**10**
	499	**287**	

Table 3 Data Description of the Twenty Samples in terms of Their Tokens/ Types and TTRs

Alighieri's Opening Lines of Inferno				**Brown's Opening Lines of Inferno**			
Sample No.	Tokens[12]	Types[13]	**TTR**	Sample No.	Tokens	Types	**TTR**
1	47	42	**0.89**	1	49	38	**0.78**
2	45	36	**0.81**	2	49	41	**0.84**
3	48	32	**0.65**	3	35	28	**0.80**
4	43	35	**0.81**	4	50	40	**0.82**
5	45	38	**0.84**	5	53	45	**0.85**
6	41	31	**0.76**	6	36	29	**0.81**
7	47	41	**0.87**	7	45	37	**0.82**
8	49	40	**0.82**	8	65	50	**0.77**
9	45	41	**0.91**	9	82	61	**0.74**
10	44	38	**0.86**	10	34	30	**0.88**

4.6.5 Data Analysis Procedures

Conducting a successful cognitive stylistic analysis study necessitates paying close attention to three tasks: segmenting the text for analysis, selecting a representative collection of data to be analyzed, and ensuring the investigation's reliability and validity before drawing accurate conclusions from data analysis (ibid).

In this regard, Krippendorf (2018: 81) clearly explores how intangible psychological aspects such as concepts, attitudes, beliefs, intentions, emotions, mental states, and cognitive processes find expression in observable verbal behavior. These internal mental phenomena themselves cannot be directly observed, but their existence becomes tangible through the acquisition of words. This is primarily facilitated by conversations, and complemented by reading and exposure

[12] The running words in each sample
[13] The distinct words in each sample

to diverse forms of media, individuals transform abstract thoughts and emotions into concrete linguistic expressions, making them accessible for communication and comprehension.

Dividing it up into six phases, the study under investigation has adopted to some extent Krippendorf's (2018) way of data analysis procedures. These procedures are: designing, unitizing, sampling, reducing, inferring, and narrating (ibid: 88). Two new procedures have been added here to suit the data at hand, these are: *graphic sketching* and *calculating*. Such an addition helps in analyzing and describing the collected data.

However, the data analysis procedures of the study under investigation are summarized in the following points:

i) **Designing**:

designing the developed schematic deviancy framework (see Section 4.3) based on a very interesting dichotomy (i.e., over-specification and under-specification dichotomy). Such a dichotomy might be initiated unexpectedly by any good reader when reading the two Infernos and/or their opening lines. As for designing the data, they have a sense of *reliability*. The latter is achieved through authentic investigation, as what follows:

4. The researcher firstly downloaded the required data from the most authentic and reliable website, see www.gutenberg.org.
5. After making sure that these digital texts are the exact copies of the original ones, they are segmented into (20) samples. Each sample holds an approximate number of tokens around (50) tokens.
6. Finally, these samples are transformed from Portable Document Format (PDF) into Plain Text Format (TXT)

so that our user-friendly software application (WordSmith Tools) would accurately do its job.

More importantly, two very trustworthy sources have been used to identify the opening lines of the two Infernos. These are the critical notebooks of Dante's Inferno by James Roberts and Nikki Moustaki (2001) and Brown's Decoded Inferno by Michael Haag and Greg Ward (2013). The two notebooks were used not only to figure out the size of each sample, but also to support what the two novelists claim and what possible interpretations readers may get during their reading of the novels at hand.

j) **Unitizing**:

identifying the different levels of detail resulted from the textual headers that the two Infernos provide.

k) **Sampling**:

selecting the data samples qualitatively and representatively and dividing up the samples in terms of a non-probabilistic sequential sampling method.

l) **Reducing**:

since they are bulky and large in size (i.e., Dante Alighieri's Inferno holds 377 pages; Dan Brown's Inferno holds 262 pages), the data at hand have been reduced to deal only with the opening lines of the ten chapters extracted from the two novels. Such a procedure helps the researcher understand the emerging cognitive patterns and concepts of what a reader might expect using his/her schematic background. Thus, the schematic deviation of the two Infernos will be identified.

m) **Graphic Sketching**:

data analysis will be cognitively and graphically visualized in terms of a software program created by the Florida Institute for

Human and Machine Cognition (IHMC), known as *Cmap Tools.*

n) **Calculating**:

Since the cognitive deviation occurred at the schematic level has its own side-effect on the linguistic level, the outcome, resulted from Cmap knowledge toolkit, will be quantitatively calculated via *WordSmith Tools*. This study will specifically calculate the TTRs occurred in each sample so that the researcher will be in a position not only to compare the TTRs obtained from the textual samples before and after data analysis for the sake of identifying the most luxurious novel in terms of its textual header, but also to measure the degree of the linguistic side-effects- resulted from the schematic knowledge scored in each novel.

o) **Inferring**:

drawing sensible conclusions from the levels of detail produced in this study.

p) **Narrating**:

reporting on the findings and conclusions of the current study.

4.7 Inferno Via Literary Critics' Lens

Understanding two nearly similar concepts of Inferno, the first novel of Inferno, by Dante Alighieri, was exiled in Florence, Italy in 1302. After being exiled, Alighieri started writing *The Divine Comedy* which consists of the Purgatorio, Paradiso and Inferno that was completed in 1314 (Sparknotes, 2013).

After writing the third series of Robert Langdon "The Lost Symbol", Dan Brown's Inferno had been written within the next sequel of the same series and published in 2013.

Noting the background of the two authors, it is interesting to analyze the work of a medieval author with that of a contemporary author. The following points will summarize how Inferno as a concept is being portrayed by the targeted novelists:

1. Alighieri's Inferno features the concept of circles of hell in which he explores each level with the help of his guide, Virgil. Such an Inferno is all about a journey of Alighieri with Virgil who went to the nine circles of hell. Virgil explained to Alighieri the sins that belong to each circle. After their journey, they went out from Lucifer's massive body and headed to Heaven.
2. As to Brown's Inferno, his novel is inspired by Alighieri which features the adventure of a man in the fictional character of Robert Langdon- a professor of religious iconology and symbols in Harvard University who tries to help humanity to prevent a plague from happening. Such an Inferno is all about Robert Langdon's search for the truth behind the plague mask, which he saw beside a lying gray-haired woman. He was looking for the virus that killed most of the population. He found out that the virus is called sterility virus and it is airborne and most of the population will get affected.

Supporting the aforementioned points, some literary critics state the followings:

1. Inferno by Dante Alighieri is an allegorical epic about a man exploring hell in which it was depicted as place for just punishments and a place for sinners to which it has a corresponding level for the degree of the sins committed when people lived. The critics have the same description that Inferno is a lonely, hostile, cold, dark and motionless place, where its deafening silence is

enough to castigate sinners to repent (see Ciardi, 2005; Babor and McGovern, 2007; Kumar, 2008; Bruce, 2009; and Novosel, 2012).

2. On the other hand, Inferno by Dan Brown was perceived similarly as a wakeup call for humanity to be aware of what overpopulation might bring to the world. The critics agree in the idea that overpopulation brings different social conflicts such as poverty, crime and sex (see Goodreads, 2013; Maslin, 2013; Olivier, 2013; Conrad, 2013; and GMA News Online, 2013).
3. All the aforementioned literary critics correspondingly agree that both Infernos portray human acts that lead to the suffering of the whole humanity.
4. They also agree that the two Infernos speak of reasons behind every wrong doing of man that can be seen in society.
5. The first group of critics agree that Inferno is just a concept of where will sinners go when they die. In contrast to this, the second group concurs that Inferno is where we live, where sinners are not punished and continue to do wrong.

After a depth understanding of what the two Infernos are all about, the information mentioned so far served as the schematic background for this dissertation. Also, with the aid of these pieces of information, the conceptual idea of Inferno from the two novelists' perspective can be extracted properly by the researcher. This in turn will help him, after applying the schematic deviancy model qualitatively, identify where and how the schematic knowledge deviation occurs during reading.

Finally, textual shreds of evidence—*the critical notebooks of Dante's Inferno by James Roberts and Nikki Moustaki (2001) and Brown's Decoded Inferno by Michael Haag and Greg Ward (2013)*- are critically chosen to ensure and support what the two novelists claim.

Regarding the *SKD*, such critical notebooks will put the dots over the i's and the bars to the t's. In other words, the two critical and popular notebooks mentioned in italics above will be adopted in this study not only to figure out where the opening lines should be ended for each textual sample but also to support what the two novelists claim and what possible interpretations readers may get during their reading of the novels at hand. This will enhance the researcher's knowledge to gain a complete insight into how and where schematic knowledge deviation occurs.

Chapter Five
Analysis, Results and Discussion

This chapter will follow the same analysis procedures that are summarized in Chapter 4 (see Section 4.6.5). It presents data analysis to demonstrate how SKD exists cognitively in the two *Infernos*. This will be done by applying the *Schematic Deviancy Model* (see Appendix A, Cook's 2022 verification of the proposed model), to the data at hand.

Because SKD has its own linguistic side effects, it will be visualized cognitively using *Cmap Tools* (Ver. 6.04), and will then be quantified and enumerated linguistically via *Wordsmith Tools* (Ver. 4) to determine the degree of deviancy resulting from SKD of the two novels.

Such a measurement will be accomplished statistically by calculating the Type/ Token Ratios (TTRs[14]) extracted from *Wordsmith Tools* before and after analyzing the data samples.

This facilitates not only the way deviation occurs cognitively in the two novels, but also reflects the emerging linguistic departure of the selected data. This study will thus provide a new technique for measuring the degree of deviancy scored in the two Infernos.

5.1 SKD via Schematic Levels of Detail

Tackling the main point of this study, the schematic challenge can be introduced into some literary works obviously by interrupting the very expected and biased level of detail that is ordinarily stimulated within a

[14] After the cognitive analysis is done, the TTRs of each sample will be calculated. That is, The TTRs counted for each sample will be compared with the TTRs of the various levels of detail resulting from Cmap Tools.

provided conceptual framework (schema). The idea is that a reader must sometimes ascertain which schematic knowledge is activated while reading this or that textual/ literary work— which detail level the schema uniquely brings to mind and why.

Furthermore, the concept of *schema* appears to be accurately related to the concept of *expectation* to the extent that each schema experienced by a reader is spaced against and contrasted to a typical version of it preserved inside the reader's prior knowledge.

While reading pieces of literary works, this type of schematic knowledge/ expectation may be failed in two ways: by activating an abnormally unlimited (overextended) level of detail; or by initiating an uncommonly limited (underextended) level of detail. In this or that scenario, the reader is not provided with the expected level of details.

The remainder of this work will take a deep glance into how the level of detail is used in the two Infernos to accomplish a type of cognitive schematic deviation. This will be actually achieved by employing the previously developed *schematic deviancy framework* sketched out in Chapter Four.

5.2 Alighieri's Inferno

Dante Alighieri's Inferno is an allegorical epic novel written in (1314). It is one of the sequels to *The Divine Comedy* and was first translated into English by Henry Longfellow (1867, an American poet, educator, and linguist who actually finished the first American translated version of Inferno and thereby released Dante's literary masterpiece to the *Age Of Exploration*. *Sin, Justice, Pity, Piety, This Life, Afterlife*, and

Fame are among the novel's many and varied themes. Other themes are intertwined with *social realities*.

According to Bruce's (2009) debate on Inferno, what makes Dante's work terrific popular fiction is that readers must stay in line while reading the *Inferno*. This is because readers do not need to be Christians, students, instructors, or intelligent men; all what it takes is that they have to be holistic readers, and everything else is inferior.

5.2.1 The SKD of Alighieri's Inferno/ 1st Sample

When drilling down profoundly into the data analysis, it is unearthed that the incredibly detailed descriptions of Dante's Inferno deviate from the readers' prior schematic expectations. The reader here should expect every extractable detail to be overshadowed and/ or completely disregarded in a typical schema instantiation.

In the coming pages, this study will investigate how the levels of detail are created in Alighieri's Inferno to achieve a sort of SKD:

Extract (1) The Opening Lines of Alighieri's 1st Sample

MIDWAY upon the journey of our life, I found myself within a forest dark, For the straightforward pathway had been lost. Ah me! how hard a thing it is to say. What was this forest savage, rough, and stern, Which in the very thought renews the fear.

When the proposed model is applied to the data at hand, all readers negotiate what they have in mind with what the narrator has in his mind. What triggers their schematic knowledge, to be negotiated with that of the narrator, is the four types of *linguistic headers*[15] mentioned in Ch.4

[15] These four types of linguistic cues definitely exist in all the twenty samples. Since all readers use them to understand a particular idea from the text, the researcher will not identify them each time when analyzing the coming text samples.

(see Section 4.3). All of which are present in sample one above. To address the first type, the text above includes precondition headers: MIDWAY, LIFE'S JOURNEY, and STRAIGHTFORWARD PATHWAY. The second type is the instrumental headers, such as I, FOUND, and MYSELF, are explicitly mentioned in the first sample. Consequently, the sample above clearly shows the third type of linguistic cue, locale headers: DARK, SAVAGE, ROUGH, and STERN FOREST. As for the internal conceptualization headers, the last type, are denoted by words like: HARD, LOST, THOUGHT, and FEAR.

Such linguistic headers assist readers in determining which schema must be used cognitively in a specified scenario, allowing various layers of schematic knowledge details to be initiated. Depending on these headers, readers will be able to activate[16] or manage the schematic knowledge they have in mind. Cognitive disruption[17] of schematic instantiation will appear as a result of this activation, leading to either schematic accretion (overextended levels of detail) or schematic refreshment (underextended levels of detail). In either case, SKD is evidently there.

However, the headers in the sample above, for example, trigger DRIVING schema: MIDWAY, JOURNEY, STRAIGHTFORWARD PATHWAY, LOST, and FOREST. The narrator explicitly refers to several schematic configurations that bring to mind specific levels of detail or traceable fallback constituents of a schema. Typically, these fallback/ default aspects are supposed to be evident in the mutual previous knowledge of the readers and narrator and thus are not expressly

[16] Readers, in general, go through activating three processes during reading: Schematic Restructuring, Schematic Preservation, and Schematic Reinforcement, see Figure (13) Schematic Deviancy Model for more details.

[17] All the 20 samples of this study will be subjected to the so-called cognitive disruption of schematic instantiation.

stated but indirectly recaptured with the aid of the textual headers provided in the novel.

Activating readers' schematic knowledge is triggered by the various levels of detail resulted from a particular process, called *the cognitive disruption of schematic instantiation*. Thus, when reading the first sample mentioned above, readers may expectedly activate the DRIVING schema depending on the linguistic headers/ markers, such as MIDWAY, JOURNEY, I, MYSELF, STRAIGHTFORWARD PATHWAY, LOST, and FOREST.

This DRIVING schema may also involve various levels of detail triggered with the aid of the other linguistic cues mentioned above. Such linguistic headers assist readers in determining which schema must be used cognitively in a specified scenario, allowing various layers of schematic knowledge details[18] to be initiated. Depending on these headers, readers will be able to activate or manage the schematic knowledge they have in mind.

The next step is going to be handled by Cmap Tools, (see Section 4.6.2). These tools will be used cognitively to create a clear-cut and rather hierarchical reflection of the various levels of detail associated with the *Driving Schema*. See, for example, the various levels of detail drawn in Figure (15):

[18] Two trustworthy sources, Dante's Inferno by James Roberts and Nikki Moustaki (2001); Brown's Decoded Inferno by Michael Haag and Greg Ward (2013), have been used in this study to validate the levels of schematic knowledge details that readers may access in general.

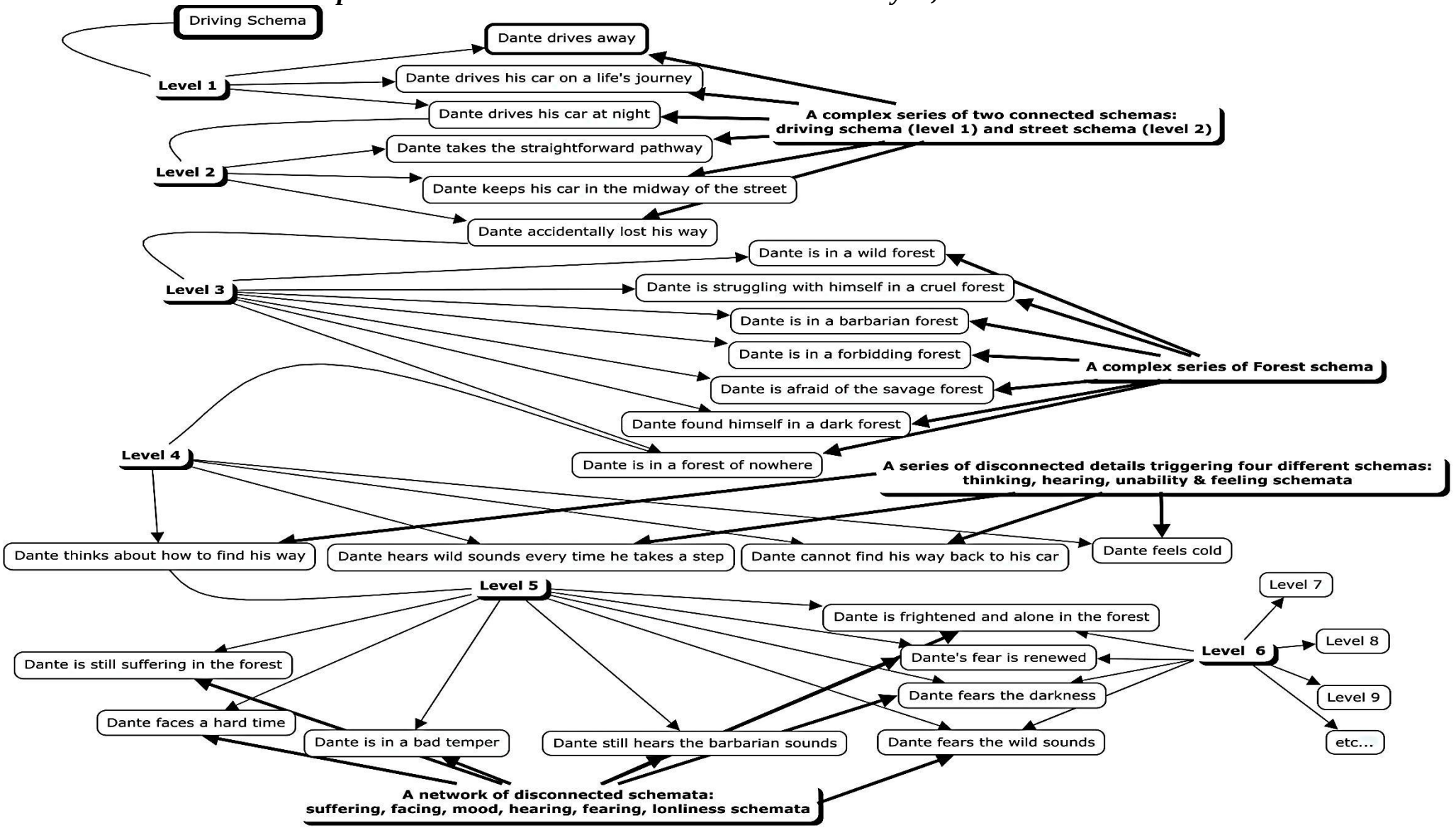


Figure 14 Levels of Detail of Driving Schema Triggered in Alighieri's Opening lines of the 1st Sample.

Looking deeply at Figure (14), one may clearly see that the narrator insists on knowing how to spell out each detail of information that a reader is already expected to be understood and recognized. Within the hierarchy of levels of specificity, the narrator picks up various details across various levels.

Figure (15) appears to be extended between two extreme schematic values: *optimum schematicity*, depicted certainly by the sentence "Dante drives[19] away" portrayed in level (1) and *optimum explanation*, characterized complicatedly by a series of disconnected details triggered within level (4). The narrator, on the contrary side, stylistically makes his own choices somewhere along the middle and totally dismisses levels (1) and (2), leaping further into the third and then into the last level.

When it comes to dealing with what readers have in their bucket, the figure above appears strange because it is designed in terms of a complex schematic network.

Readers would then be able to trigger depicted conceptual frameworks similar to those shown above using their schematic knowledge. The first two levels are expectedly connected due to textual headers such as JOURNEY, PATHWAY, MIDWAY, and LOST HIS WAY. As it is proposed that the first sample triggers the DRIVING schema, another schema, STREET schema, is expected to be created. In this way, readers can tell that the DRIVING and STREET schemata are automatically linked because they are both stored within their schematic knowledge.

[19] All the detailed pieces of information portrayed cognitively in all figures are formed by the present simple tense. This is due to the fact that readers' expectation is generally based on habits, general truths, repeated actions, directions, and so on.

Within levels (3), (4), and (5), there are even more deviant and complex schematic levels of detail. For example, the third level initiates a complex series of FOREST schema. This causes readers' interpretations to diverge, and the result is that the fourth level is instantiated even further. The latter provides somewhat complicated and disconnected schemata (e.g., THINKING, HEARING, INABILITY and FEELING schemata).

In terms of the last level (Level 5), readers may cognitively disrupt their schematic instantiation by delving deeply into various detached conceptual frameworks, as what follows: SUFFERING, FACING, MOOD, HEARING, FEARING, and LONELINESS schemata. In this sense, a very specific question may be raised: *Do these levels of detail have an end?*

The other levels[20] of detail, (6, 7, 8, 9, etc.), appear to have no end in an attempt to answer this question. This is because the more textual headers mentioned in the text, the more over-extended levels of detail have their own extensions in a sequential way, and vice versa. Another reason that could be addressed here is that readers from various backgrounds will almost certainly have additional readings of the exact text, and what triggers their readings is all done by the linguistic cues provided in the text they read.

5.2.2 The SKD of Alighieri's Inferno/ 2nd Sample

It should be noted that the second sample holds extremely detailed descriptions in which they flee from readers' typical schematic expectations. The reader anticipates that, in a typical schema instantiation, every recoverable detail will be missed and unrecognized. As a result, the narrator here specifically mentions a few schematic instantiations that conjure up particular levels of detail or traceable default constituents of a schema. Typically, these default components are implied rather than explicitly

[20] Figure (15) and all the other coming figures in this study, are intuitively drawn and most definitely complicated.

retrieved because it is supposed that they are part of the readers' and narrator's shared schematic knowledge.

Extract (2) The Opening Lines of Alighieri's 2nd Sample

DAY was departing, and the embrowned air Released the animals that are on earth From their fatigues; and I the only one. Made myself ready to sustain the war, Both of the way and likewise of the woe, Which memory that errs not shall retrace.

As shown in the first sample, certain *linguistic cues* can greatly aid readers, in general, in triggering the appropriate schematic levels. However, the second sample holds *precondition headers* (e.g., DAY, DEPARTING, RELEASED, ANIMALS and EARTH); *instrumental headers* (e.g., I, FOUND, THE ONLY ONE, MADE, READY, MY SELF, SUSTAIN, and EMBROWNED AIR); *locale headers* (e.g., FATIGUES and THE WAR); and *internal conceptualization headers* (e.g., WOE, MEMORY, ERRS, and RETRACE).

In the second sample, each of these linguistic and/or textual cues activates a peculiar network of levels of detail within the overall framework of readers' schematic knowledge relating to the experience of being alone (i.e., LONELINESS schema). These levels of detail go beyond what readers would reasonably expect and deviate from what the narrator has provided in the sample, see below what Figure (16) unexpectedly draws via Cmap tools:

Figure 15 Levels of Detail of Loneliness schema Triggered in Alighieri's Opening lines of the 2nd Sample.

Following the diagram above, the narrator stylistically performs a variety of artistic maneuvers. He chooses some levels of detail and leaves others out in what appears to be *a complex series of schematic choices*. Rather than simply selecting the highly reduced and schematized sentence "DAY was departing", the narrator goes even further, making a series of complex selections all over the different specification levels ranging from (2) and (3) up to (4) and progressively bringing it back to level (2).

That is, within level (1), the narrator has clearly mentioned the *preconditioning* headers (i.e., DAY, DEPARTING, RELEASED, ANIMALS and EARTH), which work as the starting point of triggering the other levels of detail (2), (3) and (4) represented by *instrumental, locale and internal conceptualization headers* respectively. The first level (i.e., LONELINESS schema) is connected somehow with the second creating other new schemata (e.g., FOREST and FEROCIOUS schemata).

Moving on to the third level, the narrator constructs a somewhat reversed schematic image of what the phrase "and I the only one" could necessarily imply. In this regard, readers may believe that, because there are "ferocious animals" (see level 2), "Dante himself is the prey".

This level generates more deviant details, leading to create a complex series of "DEATH schema". As for deeply going through more deviant levels of detail, level (4) creates a more complicated series of multiple schemata (e.g., RUN, HIDING, READINESS, TREES, TRICKS, ANIMALS, REMEMBERING and FEELING schemata).

Returning to level (2), the narrator demonstrates a consistent avoidance of schematic under-specification and his desire is to look

forward to over-specification within the context of the readers' most familiarized life experience. The narrator, thus, makes up for every level of detail associated mostly with the REMEMBERING schema (see level 4). Such a schema misrepresents the readers' schematic expectations, which then customarily be conveyed in two convenient and schematized sentence fragments such as: "Dante faces ferocious animals" and "the ferocious animals are exhausted, hungry, and looking for a prey" (see level 2).

5.2.3 The SKD of Alighieri's Inferno/ 3rd Sample

Continuing with the first novel, it is worth noting that readers of Alighieri's novel are not given any breaks to sustain a sufficient level of schematic expectations all through the narration:

Extract (3) The Opening Lines of Alighieri's 3rd Sample

THROUGH me the way is to the city dolent; Through me the way is to eternal dole; Through me the way among the people lost. Justice incited my sublime Creator; Created me divine Omnipotence, The highest Wisdom and the primal Love.

Just as the readers have grown accustomed to the narrator's over-specified schematic preferences that generate utterly pointless traceable levels of detail, the narrator decides to underperform the readers' over-specified schematic knowledge with nothing but an amazingly underspecified depiction of repeated schema, which would be entitled DANTE'S GATE OF SORROW. Such a schema is represented by the repeated preconditioning phrase: "Through me the way". As for the other types of linguistic headers, they provide the following levels of detail drawn in Figure (17) below:

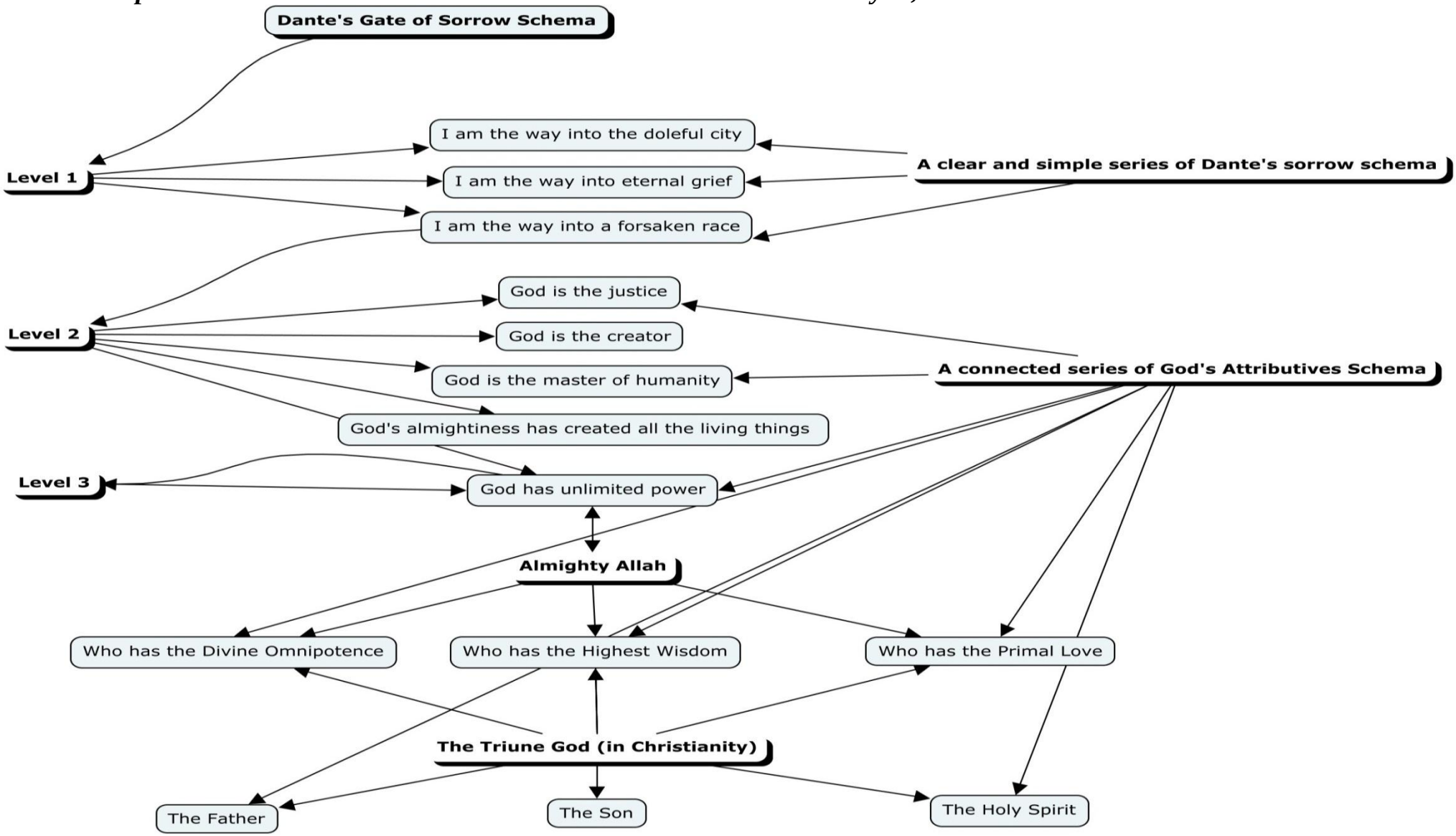


Figure 16 Levels of Detail of Dante's Gate of Sorrow Schema Triggered in Alighieri's Opening lines of the 3rd Sample.

Unlike the previous samples, sample (3) above indicates that level (1) consists of simple and straightforward interpretation, with the result being a single schema describing Dante's sorrow. This could be because the narrator has said "Through me the way" several times.

In this case, readers would expect the narrator to go over all of the familiar details that fill the slots of the DANTE'S GATE OF SORROW schema, which is represented in the first level. As readers progress, there may be many attributives that describe God on the second level. This means that God is more than just 'Justice', 'Creator', or 'Master', because there are ninety-nine attributives that describe Almighty Allah in Islamic beliefs.

This also applies to the third level, but from two different perspectives. At first glance, these characteristics appear to be unique to Islamic culture. As for the second, 'The father', 'The Son' and 'The Holy Spirit' are three fixed attributives that describe God in Christianity, and hence lied down under the umbrella of "God's Trinity" or "The Triune God".

All three levels of schematic explication in the "Dante's Gate of Sorrow" schema are immensely nullified and schematized in terms of three under-specified and schematically simplified sentence fragments:

- THROUGH me the way is to the city dolent.
- Justice incited my sublime Creator.
- Created me divine Omnipotence.

Such an elevated schematic concision stands forth not only as the overloaded and deviated levels of detail that readers create but also as an internal deviation from a high schematic specificity norm that has been set in place multiple times all over the sample at hand.

5.2.4 The SKD of Alighieri's Inferno/ 4th Sample

Exploring the novel's 4th sample, this study continues to track and identify the most formulaic and biased default elements, within which readers are supposed to be more or less closely associated with. Hence, the strangeness of readers' interpretation can be then detected and brought to the limelight.

Extract (4) The Opening Lines of Alighieri's 4th Sample

BROKE the deep lethargy within my head. A heavy thunder, so that I upstarted, Like to a person who by force is wakened; And roundabout I moved my rested eyes, Uprisen erect, and steadfastly I gazed, To recognise the place wherein I was.

In order to identify the SKD, the linguistic headers in sample (4) are remarkably recognized as aesthetic functions of schematic level choice. Such a sample is noteworthy for the fact that almost every triggering of the most ordinary and quotidian level of schematic detailed information is either guided or initiated by a pretty weird and dreamlike narrative. Dante initiates the weirdest and most superfluous life experience by employing the most recognizable levels of detail in a schematic representation.

The preconditioning headers, represented in "BROKE the deep lethargy within my head" ,"steadfastly I gazed" and "rested eyes", initiate a close familiarity of SLEEPING schema, and then are

immediately followed by an extremely instrumental and bizarre header (i.e., “A heavy thunder”), creating THUNDER schema.

Since the narrator does not know where he is, *locale headers* are unknown. As for the internal conceptualization headers, they are represented by certain words like: “force”, “wakened”, “upstarted”, “uprisen erect” and “recognize”, and thus activating INABILITY schema. However, all these headers trigger various deviant levels of schematic detail diagrammatically drawn in Figure (18) below:

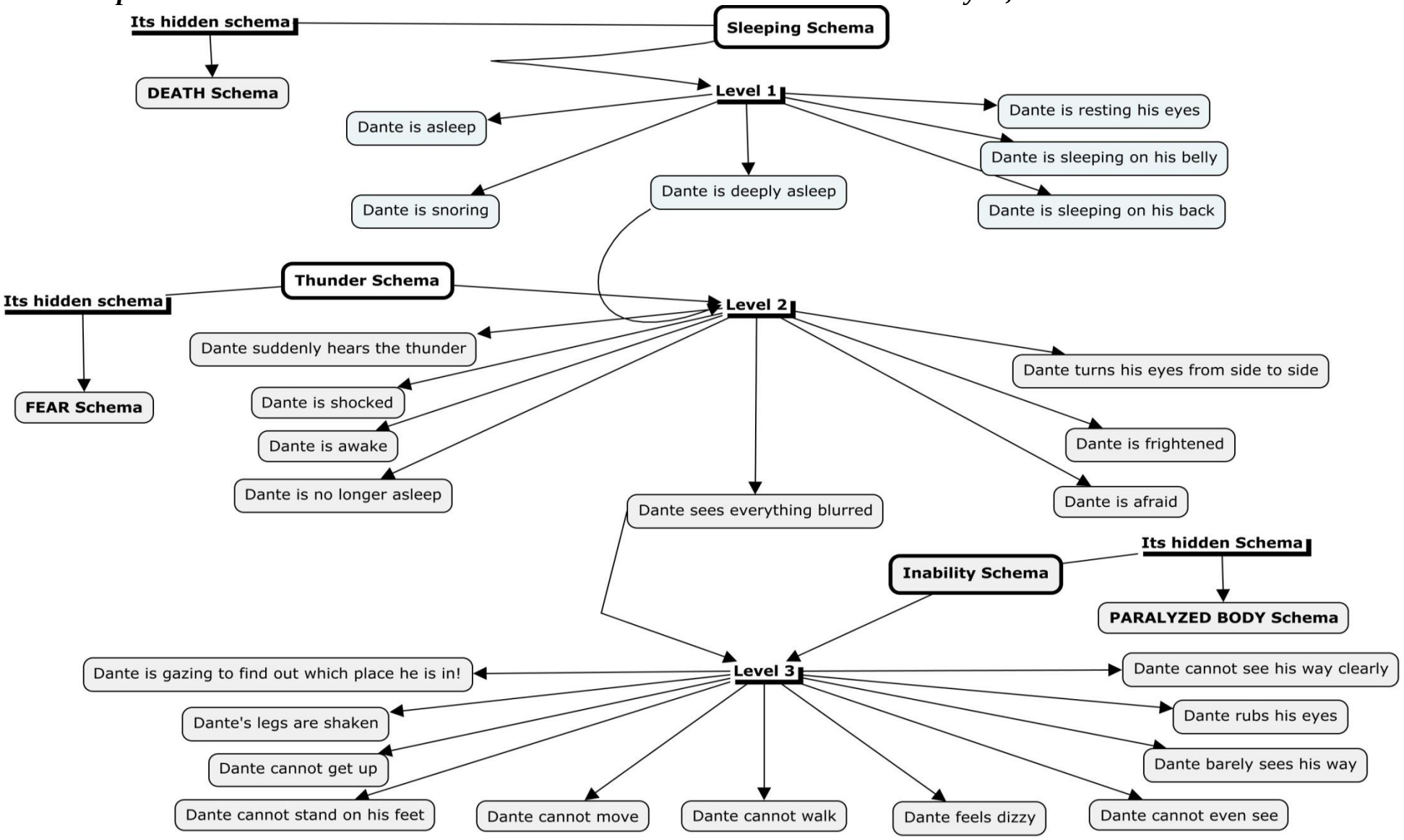


Figure 17 Levels of Detail of Sleeping, Thunder and Inability Schemata Triggered in Alighieri's Opening lines of the 4th Sample.

What attracts the researcher's attention is that sample 4 is made up of three contrasted schemata: SLEEPING, THUNDER, and INABILITY. This implies that the narrator prefers to give the reader a life jacket—or, to put it another way, a vastly over-specified familiarity with ordinary life experiences—before plunging him into a strange and magical world of what Inferno looks like.

The juxtaposition of contrasting types of incidents and adventures appears to be a common feature of epic literature: the known with the unknown, the predictable with the unpredictable. That is to say, the 'SLEEPING' schema may refer to another hidden schema (i.e., 'DEATH' schema); the 'THUNDER' to 'FEAR' schema; and the 'INABILITY' to 'PARALYZED BODY' schema.

All of these schemata are not explicitly mentioned by the narrator. Still, they are implicitly recovered by readers' schematic knowledge. Thus, their schematic knowledge deviation is clearly present and visible via the over-specified levels of detail displayed visually in the figure above.

5.2.5 The SKD of Alighieri's Inferno/ 5th Sample

It is worth noting that the three schemata, portrayed in the fourth sample, represent *Inferno's* first circle and serve as a prelude to its second circle, see the following sample:

Extract (5) The Opening Lines of Alighieri's 5th Sample

THUS I descended out of the first circle. Down to the second, that less space begirds, And so much greater dole, that goads to wailing. There standeth Minos horribly, and snarls; Examines the transgressions at the entrance; Judges, and sends according as he girds him.

Following the previous sample, it evidently goes on to give a rather internal conceptualization picture of what "SLEEPING" schema is exactly intended for. This means that "SLEEPING" schema (in Sample 4) has its own reflection on Sample (5) represented by Inferno's second circle.

The linguistic headers in the sample above, for example, trigger the INFERNO's 2nd circle schema: *descended out, down, the less space begirds, dole, judge, snarl, Minos, horribly, send and transgressions*. Figure (19) below provides a schematic representation of hierarchical various levels of detail involved within the INFERNO's 2nd circle schema:

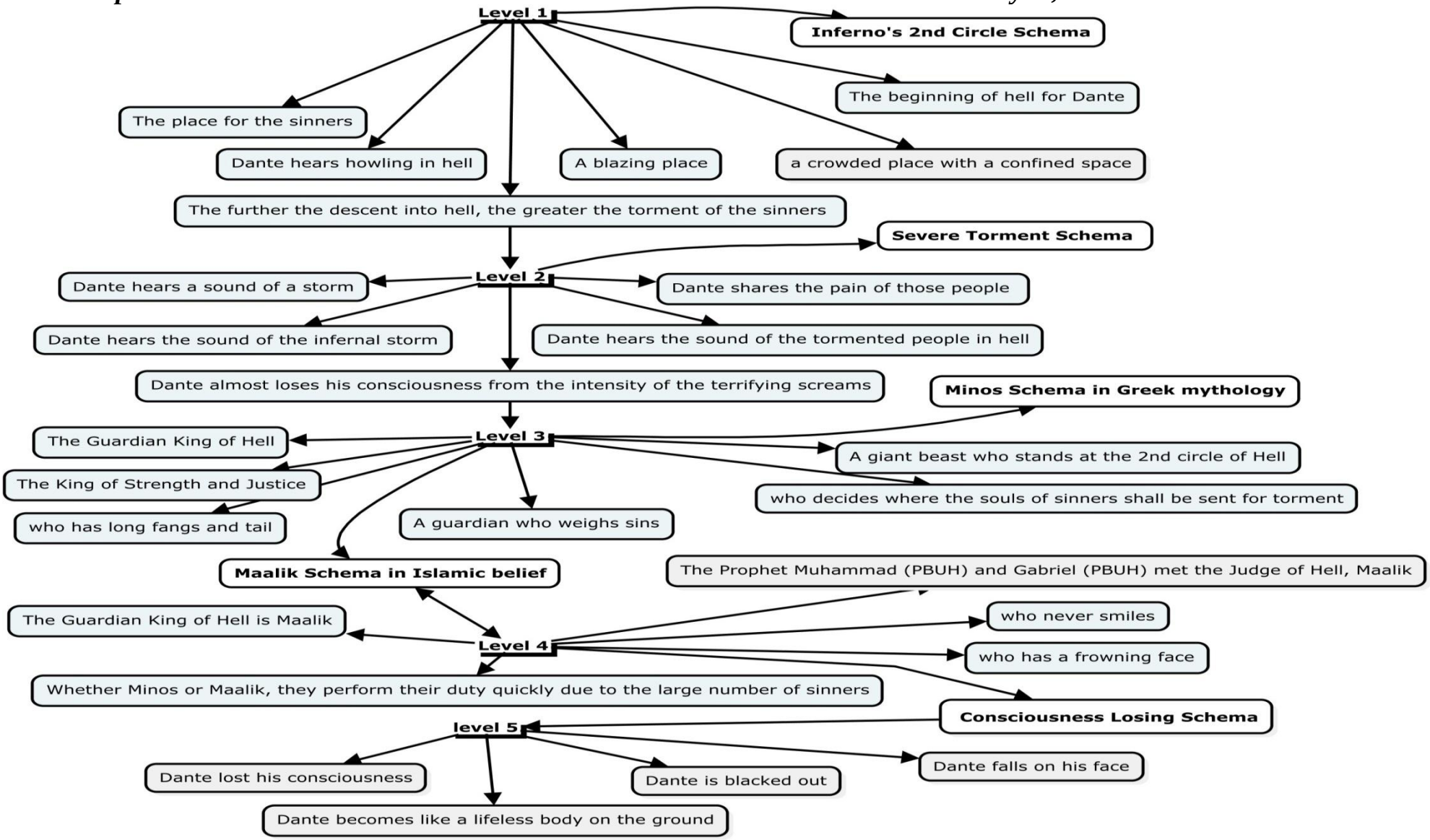


Figure 18 Levels of Detail of Inferno's 2nd Circle Triggered in Alighieri's Opening lines of the 5th Sample.

As previously stated (see Chapter 3), implementing a cognitive stylistic analysis integrates two types of consideration. The former is concerned with the linguistic/ stylistic choices and structuring within a literary text. The latter is concerned with the mental processes and cognitive manifestations that any reader stimulates in order to arrive at a specific interpretation of the same reading piece.

However, the predictable levels of information presumed by the reader are not explicitly existed there in the text sample. Readers' schematic knowledge could generate overextended levels of detail, or sometimes unusually reduced and/or underextended levels of information. In either case, what readers predict is going ahead towards a sort of cognitive deviation, that is SKD.

Spelling out every piece of detail that a reader is already expected to be aware of and familiar with, the narrator in sample (5) makes an explicit state to some schematic instantiations that bring to mind certain levels of detail or recoverable predefined components of INFERNO schema. Customarily, such predefined components are presumed to be available in the mutual conceptual understanding of the readers and narrator and are therefore not directly defined but indirectly retrieved.

The narrator, consequently, makes his stylistic choices somewhere in between and clearly ignores levels (4) and (5) focusing on levels (1); (2) and (3) in the first place. This is due to the fact that the narrator directs his attention towards "INFERNO", "Severe Torment" and "Minos" schemata, making readers create a weird network of levels of information. The overspecified schematic levels established so far in sample (5) may not be fulfilled as expected by all readers. Rather, there might be extra levels of detail that go beyond readers' expectation. This can be seen in level (5). Such a level can be gradually descended via the previous levels (i.e., as a result of the foregoing levels).

This means that what the narrator dealt with in his fifth sample leads to an underspecified level with few details. That is, every person in this world cannot bear to see how *Inferno* devours sinner people, and no one would hear the sounds of their suffering. That is why readers may reach an extra and/or limited interpretation: "Dante lost his consciousness".

In general, readers may anticipate or predict varying levels of detail, not only in terms of how the narrator has filled in the slots of the INFERNO's 2nd schema but also in terms of how readers may create other new schemata based on their schematic knowledge. Take level (4) as an example, readers may create new levels of detail depending on their Islamic background.

This indicates that the schematic gap between levels (3) and (4) is extremely close in terms of familiarity. In other words, the closer the schemata are in terms of various backgrounds of readers, the smaller the schematic gap between the new schema and familiar becomes.

5.2.6 The SKD of Alighieri's Inferno/ 6th Sample

What comes after is the 3rd circle of *Inferno*. Dante, in sample (6), astonishingly continues his series of what would happen in *Inferno* for the sinners. In there, readers would find more erroneous levels of detail, see Extract (6) below:

Extract (6) The Opening Lines of Alighieri's 6th Sample

AT the return of consciousness, that closed Before the pity of those two relations, Which utterly with sadness had confused me, New torments I behold, and new tormented Around me, whichsoever way I move, And whichsoever way I turn, and gaze.

The textual headers mentioned in sample (6) above trigger three different schemata: CONCUSSION, SORROW and TORTURING. These schemata are represented in terms of three levels of detail with a possibility of having a fourth level.

Nonetheless, the narrator insists on wording out every piece of information that is already assumed to be recognized and relatable to a reader in separate components of his text sample. This is accomplished through the straightforward repetition of the linguistic cues: I, New torments, and whichsoever way.

The technical familiarity of the first schema, the CONCUSSION schema, was offset by an aforementioned depiction of what was mentioned in the fifth sample's final lines: *There standeth Minos horribly, and snarls; Examines the transgressions at the entrance; Judges, and sends according as he girds him*. The other two schemata are activated in response to the textual headers presented in the sixth sample. Nonetheless, readers' minds are pushing ahead with excessive details leading to the SKD.

What is striking about Alighieri's Inferno is that every launching of the most commonplace and adorned level of schematic details would either be abided or initiated by a mysterious and avant-garde narrative. As a way into the strangest and most extraneous experiences, Dante as a result tends to appeal towards the most commonly associated levels of detail found in the schematic depiction of readers. Figure (20) below shows those associated levels of detail:

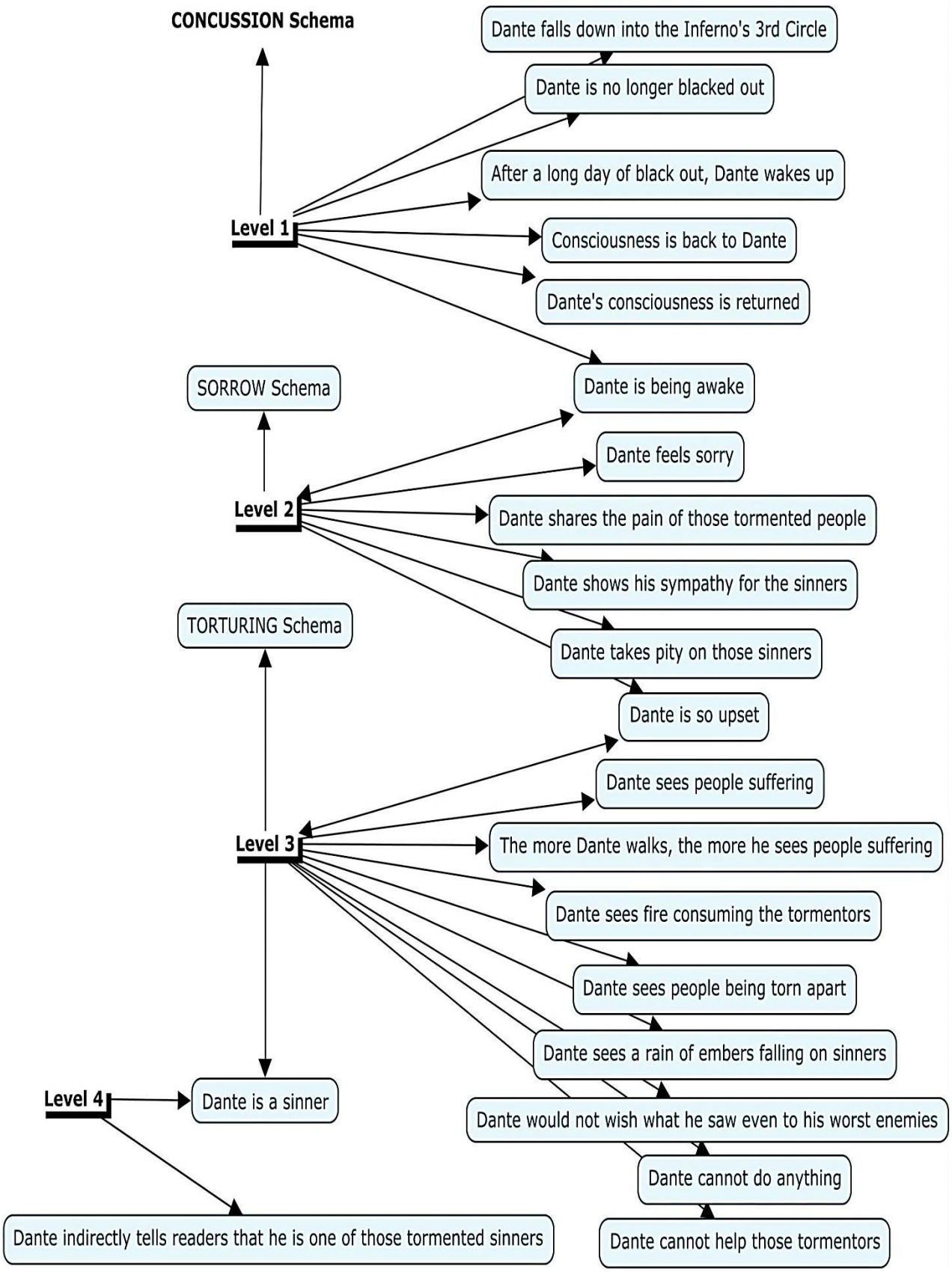


Figure 19 Levels of Detail of Inferno's 3rd Circle Triggered in Alighieri's Opening lines of the 6th Sample.

5.2.7 The SKD of Alighieri's Inferno/ 7th Sample

Inferno's 3rd circle schema, which is depicted so far in figure (20), is followed by the extremely weird PLUTUS schema provided in the 7th sample. The latter is initiated by repeating certain preconditioned Arabic words: "PAPE Sat`an, Pape Sat`an", meaning *the door of Satan.* It is worth noting that the first schema, INFERNO's 4th circle schema, is twofold and represented by the God of luck and fortune, called PLUTUS.

In this respect, the next cognitive representation (see figure (21) below) is going to have two combined schemata (that of PLUTUS schema with that of PLUTUS' VOICE schema) within the first level. As for the other textual headers, see Extract (7) below, they provide other two schematic levels. The former is represented by HELL schema in Islamic beliefs and the latter by ROCK schema.

Extract (7) The Opening Lines of Alighieri's 7th Sample

"PAPE Sat`an, Pape Sat`an, Aleppe!" Thus Plutus with his clucking voice began; And that benignant Sage, who all things knew, Said, to encourage me: "Let not thy fear Harm thee; for any power that he may have Shall not prevent thy going down this crag".

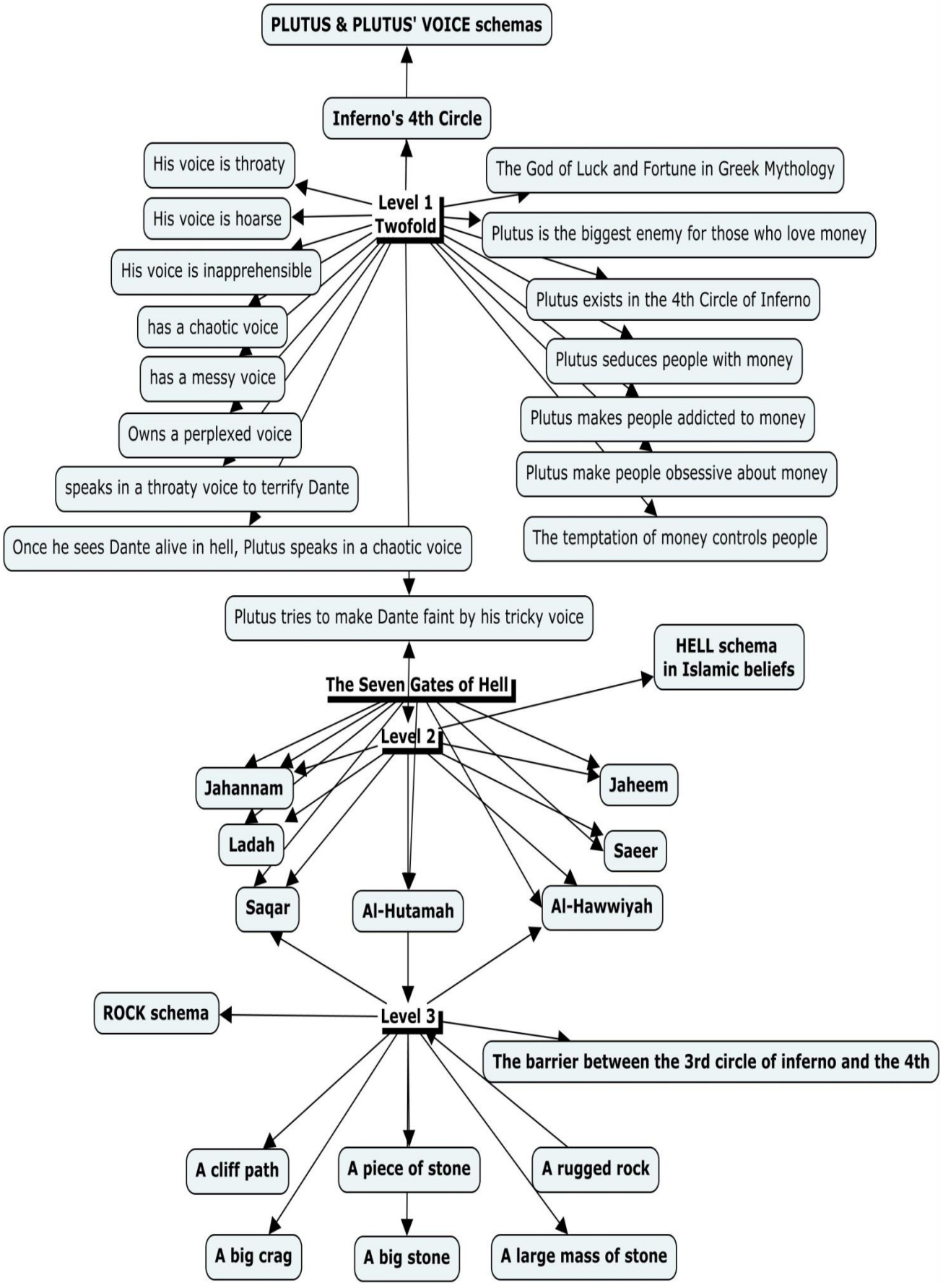


Figure 20 Levels of Detail of Inferno's 4th Circle Triggered in Alighieri's Opening lines of the 7th Sample.

The very interesting thing here is that Inferno's 4th circle involves a network of various instantiations within three levels of schematic details. The reader here figures out more than what schematic knowledge is triggered in this textual sample. This means that every schema a reader encounters is mapped against a stereotypical version of it stored and compared in his/her memory.

Readers' schematic expectations could be failed regarding the levels of detail triggered from the 7th sample. These details are not found in the sample but are predicted by the readers. As a result, unusually overextended levels of detail are generated from the textual sample mentioned above. Take the first schema as an example, readers may trigger, depending on the linguistic cues provided in the sample, the way Plutus seduces people about money only by using his throaty voice. Thus, the first schema is composed of two parts: Plutus and his tricky voice. Since the details generated so far are not there but cognitively recovered, it is worth noting that the details of the first schema give an indication that readers' schematic knowledge, in the 7th sample, is of a high degree of deviation.

Dealing with the 2nd level, the gates of 'Hell' are seven[21] in Islamic beliefs. These schematic details give Alighieri a great advantage in that his style is paralleled, unique and elevated. This is due to the fact that *Inferno* appeals to readers all over the world. When they read, their schematic knowledge can be submitted to what Alighieri is attempting to convey in his writing. Simply put, Alighieri employs a style that addresses both the Christian and Islamic faiths. This raises an awkward question: *did Dante read the Qur'an and/ or had the Qur'an been already translated into Latin at that time?*

[21] See the Glorious Qur'an, Surah Al-Hijr, verses: 42 and 43.

As for the 3rd level, Dante's complex style makes readers dig deeply into their schematic knowledge for the sake of finding out what the 'ROCK' schema is used for. Still, readers implicitly recovered the schematic details with the aid of the linguistic cues presented in the textual sample. The ROCK schema here may refer to the barrier that closes the gap between the 3rd and the 4th layers of the inferno, or may simply refer to nothing but a big stone. In either possibilities, schematic knowledge deviation is there.

5.2.8 The SKD of Alighieri's Inferno/ 8th Sample

Even more deviant and sophisticated network of schematic levels of detail are activated and triggered within the coming textual sample (sample 8).

Within the general framework of readers' schematic knowledge, the textual headers involved in the 8th sample below activate a weird series of disconnected levels of detail related to three different schemata: WALKING, SEA, and TOWER. These textual headers are *I, say, continuing, we, eyes, come, the foot, high tower, saw, two flamelets, the sea* and *fire.*

Extract (8) The Opening Lines of Alighieri's 8th Sample

I SAY, continuing, that long before ,We to the foot of that high tower had come, Our eyes went upward to the summit of it, By reason of two flamelets we saw placed there, And from afar another answer them, So far, that hardly could the eye attain it. And, to the sea of all discernment turned, I said: "What sayeth this, and what respondeth That other fire?

It is worth noting that the narrator in sample (8) has used the preconditioned textual header 'WE'[22] to recall his guide, *Virgil*, to walk with him along the way through the 5th circle of Hell. This means that Dante does not explore *Inferno* alone by himself, but by the companion of Virgil.

However, in what appears to be a complicated network of schematic choices, the narrator chooses some details at various levels while excluding others. He generates a series of choices available across various specification levels in terms of three schemata, as shown in Figure (22) below:

[22] Here Dante uses the pronoun 'we' referring to Dante and his imaginative character, called Virgil. Dante chose Virgil as a supporting character in Inferno on purpose, believing him to be a brilliantly rational historical figure who desired to have similar legendary status. For more details, see Dante's Inferno by James Roberts and Nikki Moustaki (2001: 4).

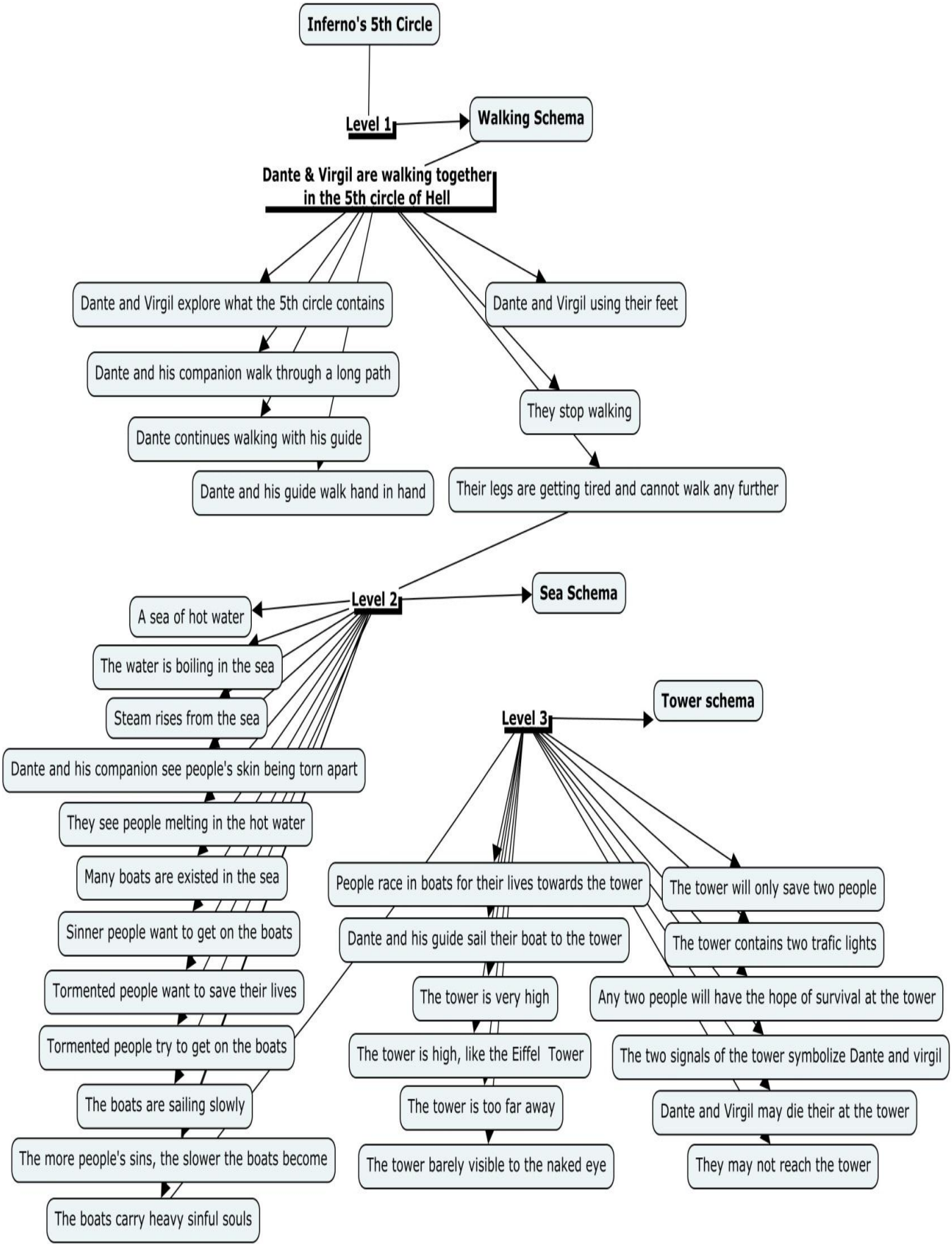


Figure 21 Levels of Detail of Inferno's 5th Circle Triggered in Alighieri's Opening lines of the 8th Sample.

In the sense of the readers' most familiar experiences, the narrator exhibits a continual exclusion of schematic under-specification and a thirst for over-specification. The fifth circle of the *Inferno* is described in great detail by the narrator, which completely defies the readers' expectations. Rather than opting for the straightforward, highly reduced, and schematized sentence "*We to the foot of that high tower had come"*, the narrator drives his readers to go above and beyond their expectations, disrupting their schematic knowledge toward a complex range of options along through the different specification levels mentioned in the diagram above.

5.2.9 The SKD of Alighieri's Inferno/ 9th Sample

Despite his complex writing style, Dante shrinks his thoughts in the ninth sample (see Extract (9) below), intending to limit readers' schematic knowledge from going further towards overextended specifications of schemata. Simply put, the narrator this time emphasizes the schematic under-specification while ignoring over-specified schematic specification. As a result, the amount of schemata are reduced, and only two schemata (VIRGIL's FACE and VIRGIL), with their relevant details, are triggered in the 9th sample. See the diagram drawn by *Cmap tools* below:

Extract (9) The Opening Lines of Alighieri's 9th Sample

THAT hue which cowardice brought out on me, Beholding my Conductor backward turn, Sooner repressed within him his new colour. He stopped attentive, like a man who listens, Because the eye could not conduct him far Through the black air, and through the heavy fog.

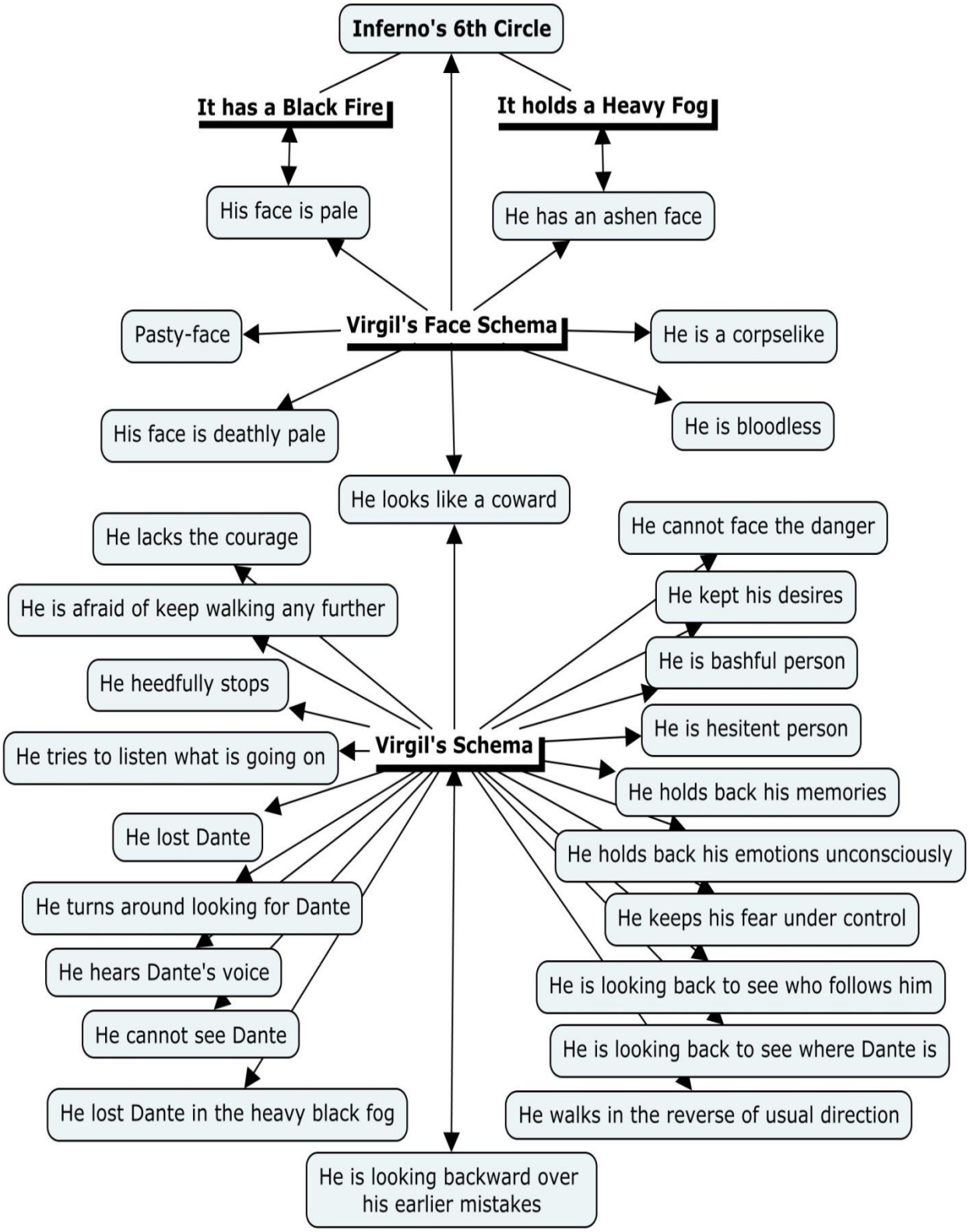


Figure 22 Levels of Detail of Inferno's 6th Circle Triggered in Alighieri's Opening lines of the 9th Sample.

All the linguistic cues provided in the ninth sample refer to Virgil's description. The narrator employs only two schemata to describe the events within the sixth circle of hell. He wishes to frame readers' thoughts putting them in a small process of detailed information.

Simply put, the narrator here underscores the *de-emphasis* of the esthetical valuation of the textual cues (see Section 3.3) that can be completely disregarded or tracked down from the schematic context. The narrator seeks out the audience to personify ideas by spending some time alone in the other world planting the idea of fear and cowardice in the reader's mind.

Furthermore, Alighieri sends a special message to the reader, like he is trying to say: "We are all destined to fail" and/or "A person's sins will devour his bod". Despite the fact that the number of schemata is far too limited, the detailed information is overextended, leading to a considerable degree of schematic knowledge deviancy.

This high schematic mansion, which is diagrammatically depicted in the figure above, manages to stand out as a semblance of cognitive deviation within a norm of high schematic specificity that has been initiated by the reader intentionally across the sample.

Thus, the sample presented in the table above does not conform to the under-specified schematic norm as expected. This is because the narrator must go through all the well-known details triggered by the linguistic cues while also paying attention to the different readings that readers might foresee. As if these glimpses fill in the blanks of a missing schema, possibly the "DOOM" schema, which is not explicitly mentioned but may be nonetheless indirectly recovered.

5.2.10 The SKD of Alighieri's Inferno/ 10th Sample

Going to analyze the 10th sample, the last sample within the first novel, the narrator picks up various details across various levels. These levels are triggered in terms of FOUR schemata, namely: CEMETERY, IMPIOUS, GOD's POWER and LONGINGS schemata. As a result, the narrator specifically mentions some schematic instantiations that conjure up particular levels of detail or traceable predefined components of a schema.

Typically, these predefined components are implied rather than explicitly stated because it is assumed that they are part of the readers' and narrator's shared background information. Thus, they are represented by the following textual headers: *a narrow path*, *torments*, *city wall*, *Master*, *Power*, *Supreme*, *Impious*, *circles* and *longings*, see Extract (10) below:

Extract (10) The Opening Lines of Alighieri's 10th Sample

NOW onward goes, along a narrow path Between the torments and the city wall, My Master, and I follow at his back. "O power supreme, that through these impious circles Turnest me," I began, "as pleases thee, Speak to me, and my longings satisfy.

The linguistic cues in the preceding textual sample activate odd connectivity of detail levels within the readers' overall schematic experience and understanding of Inferno's 7th circle, see the diagram below:

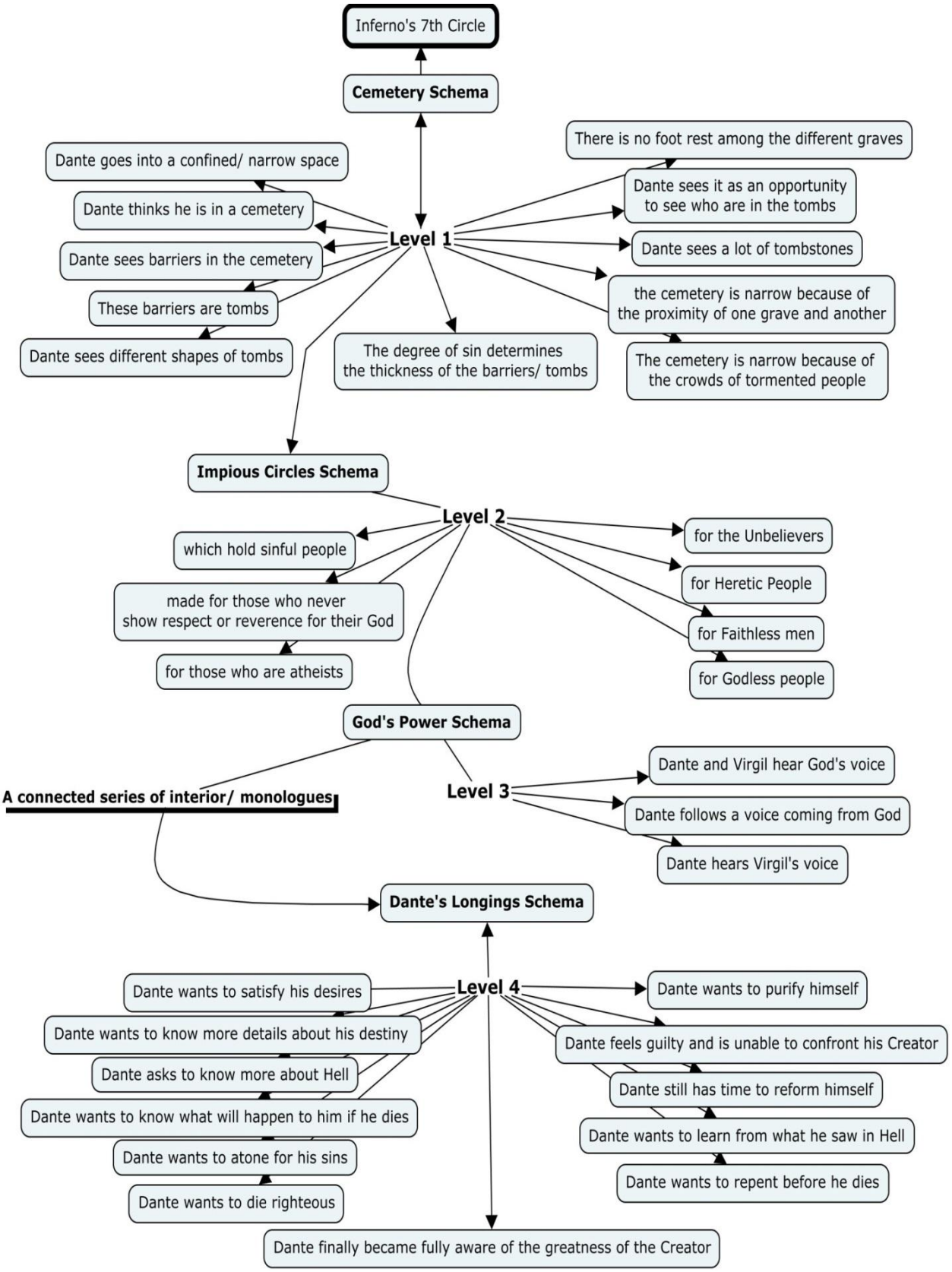


Figure 23 Levels of Detail of Inferno's 7th Circle Triggered in Alighieri's Opening lines of the 10th Sample.

Once more, the schematic representation, drawn in the figure above, demonstrates how the narrator continues to go overboard with the details, resulting in something distinctive in readers' minds. This kind of unexpected level of detail, within the reader's pre-existing schematic toolkit, opens the door for a cognitive challenge to the reader's schematic expectations in a way that is inextricably linked to the fundamental artistic qualities of the fantasy genre to which Alighieri's novel belongs.

Introducing a number of schematic surprises that defy the reader's preconceived ideas, Alighieri de-familiarizes the ordinary experience of readers in his novel. Figure (24) appears to be caught in terms of two extremes: the most simplistic representation, which could be summed up in the sentence "as pleases thee, Speak to me, and my longings satisfy", and the most complicated representation, which goes much further into describing a connected series of monologues. However, the narrator makes his stylistic choices somewhere in the middle and obviously overrules levels (1) and even (2), placing a strong emphasis on levels (3) and (4).

Although the first novel has already been subjected to stylistic and cognitive analysis, this study will now flip its attention to the analysis of Dan Brown's (2013) novel. This would be carried out to confirm what has already been investigated and debated as well as to tell exactly whether or not readers are actually engaging in a sort of SKD to the extent that they unintentionally overextend and/or underextend the levels of detail as they read.

5.3 Brown's Inferno

Inferno, written by the American novelist Dan Brown, is the fourth installment in his Robert Langdon series after *Angels and Demons*, *The Da Vinci Code*, and *The Lost Symbol*. Ten years after the release of *The Da Vinci Code* (2003), *Inferno* is released on the fourteenth of May, 2013.

It has spent the first eleven weeks of its official launch at the top of the New York Times bestseller list for paperback narrative, and it is continued to be at the top of the list for e-book narrative for the first seventeen weeks of its publication. On October 28, 2016, a theatrical cut of Inferno is set to release in the US[23].

However, Brown's Inferno has been influenced by Dante's Inferno in terms of its portrayal of Hell. Robert Langdon[24] is the protagonist in Dan Brown's Inferno. Brown affirms that Langdon is "a fictional alter ego", declaring that he is "the guy I wish I could be"[25]. Although most readers are aware that the terms "Inferno" and "Hell" refer to a large and dangerous fire, the novel "Inferno" has its own irregular language usage that may run counter to readers' expectations and impart a sense of SKD. Thus, *this study will once more look into how Brown's opening lines of Inferno utilizes the various levels of detail in an effort to obtain discernible confirmation of the SKD*.

[23] See McLaughlin, Erin (January 15, 2013). "New Dan Brown Novel, 'Inferno,' Set for May Release". ABC News.

[24] Langdon, a professor of religious iconology and symbols at Harvard University in New York, works to help humanity prevent a plague from spreading.

[25] See Brown's Decoded Inferno by Michael Haag and Greg Ward (2013: 362).

5.3.1 The SKD of Brown's Inferno/ 1st Sample

Analyzing the first sample (see Extract (11) below), one may note that Brown's Inferno deviates from the readers' typical preconceived knowledge with its meticulous descriptions of *hell, bodies, blood*, and *fire*. All these ideas are jumbled together in Brown's Inferno.

The reader activates every discernible detail that may be missed and/or unobserved in a typical schema instantiation. Therefore, Brown explicitly uses certain textual words that evoke several schematic representations. These representations work to create specific levels of information or traceable standard parts of a schema, see Figure (25) drawn by *Cmap Tools* down below:

Extract (11) The Opening Lines of Brown's 1st Sample

I[26] AM THE Shade[27]. Through the dolent city, I flee. Through the eternal woe, I take flight. Along the banks of the river Arno, I scramble, breathless turning left onto Via dei Castellani, making my way northward, huddling in the shadows of the Uffizi. And still they pursue me.

[26] Since Brown wishes to be Langdon, ''the guy I wish I could be'', readers are probably going to expect that "I" belongs to Langdon.

[27] According to some literary critics, 'The Shade' in Brown's Inferno refers to a poisonous virus that can be spread through the air and affect an overwhelming number of people, see Brown's Decoded Inferno by Michael Haag and Greg Ward (2013)

Figure 24 Levels of Detail of Shade Schema Triggered in Brown's Opening lines of the 1st Sample.

Following the linguistic headers presented in the sentence "I AM THE Shade", it is clear to observe, from Figure (25), that a dominated SHADE schema is drawn in the first level, among other headers. This kind of schema has the upper hand over other schemata in terms of two perspectives. At a first glance, the narrator stylistically has foregrounded the idea that something bad is going to happen represented by an ominous sign "the shade". This is accomplished by capitalizing the sentence "I AM THE Shade"; as if the narrator were enunciating it with a rising then falling intonation occurred on the word "Shade". At the second glance, the narrator uses the SHADE schema and make it unique inside his readers' minds to the extent that such a schema has nothing to do with the other schemata and it may be linked to DEATH schema, which is implicitly recovered.

In addition to the excessive levels of detail of the SHADE schema, the narrator also employs what is referred to as *deviation within deviation*—a deviation that occurs within the SHADE schema itself. Simply put, the narrator might want to deliver a hidden message to his readers telling them that "Wherever you are, DEATH is closer than you think, like a SHADE", *where the* "shade" *could be anything from a virus to an accident to a sickness to death itself.*

As for the remaining levels, the other textual headers (see Extract 11) activate ESCAPISM, DIRECTIONS/ MAP OF ESCAPE and TIREDNESS schemata represented by the levels (2), (3) and (4) respectively. The hierarchical representation of these levels resembles a densely connected network of detailed information, making a consequent series of events with no stopping. Still, the *overextended* levels of detail are generated by the readers.

It is also important to note that even though the narrator initially focuses on the idea of "Shade," he implicitly ends his opening lines with a variety of the same idea, which is represented by the linguistic cues "And still they pursue me". This, in turn, increases the idea of DEATH in his readers' minds.

In "And still they pursue me," the word "they," used as the conceptualizing textual header, may activate two closely related sentences that are part of the TIREDNESS schema: "Enemies are chasing him" and "Enemies want him dead." As a result, the readers are led to believe that the narrator is still emphasizing the idea presented in the first level, which is implicitly recovered within the DEATH schema and/or constituted within the SHADE schema (see the levels of detail, in particular levels: 1 and 4).

5.3.2 The SKD of Brown's Inferno/ 2nd Sample

Looking deeply at the second sample, this study discovers that the narrator uses a limited number of conceptualizing textual headers, for example, *memories*, *materialized*, *darkness*, *red*, *blood*, *motionless and shroud*, that lead to mysterious, but very ramified interpretations, as if he were strongly motivated to imbue the idea of *death* in his readers' minds, see figure (26) below:

Extract (12) The Opening Lines of Brown's 2nd Sample

The memories materialized slowly, like bubbles surfacing from the darkness of a bottomless well. A veiled woman. Robert Langdon gazed at her across a river whose churning waters ran red with blood. On the far bank, the woman stood facing him, motionless, solemn, her face hidden by a shroud.

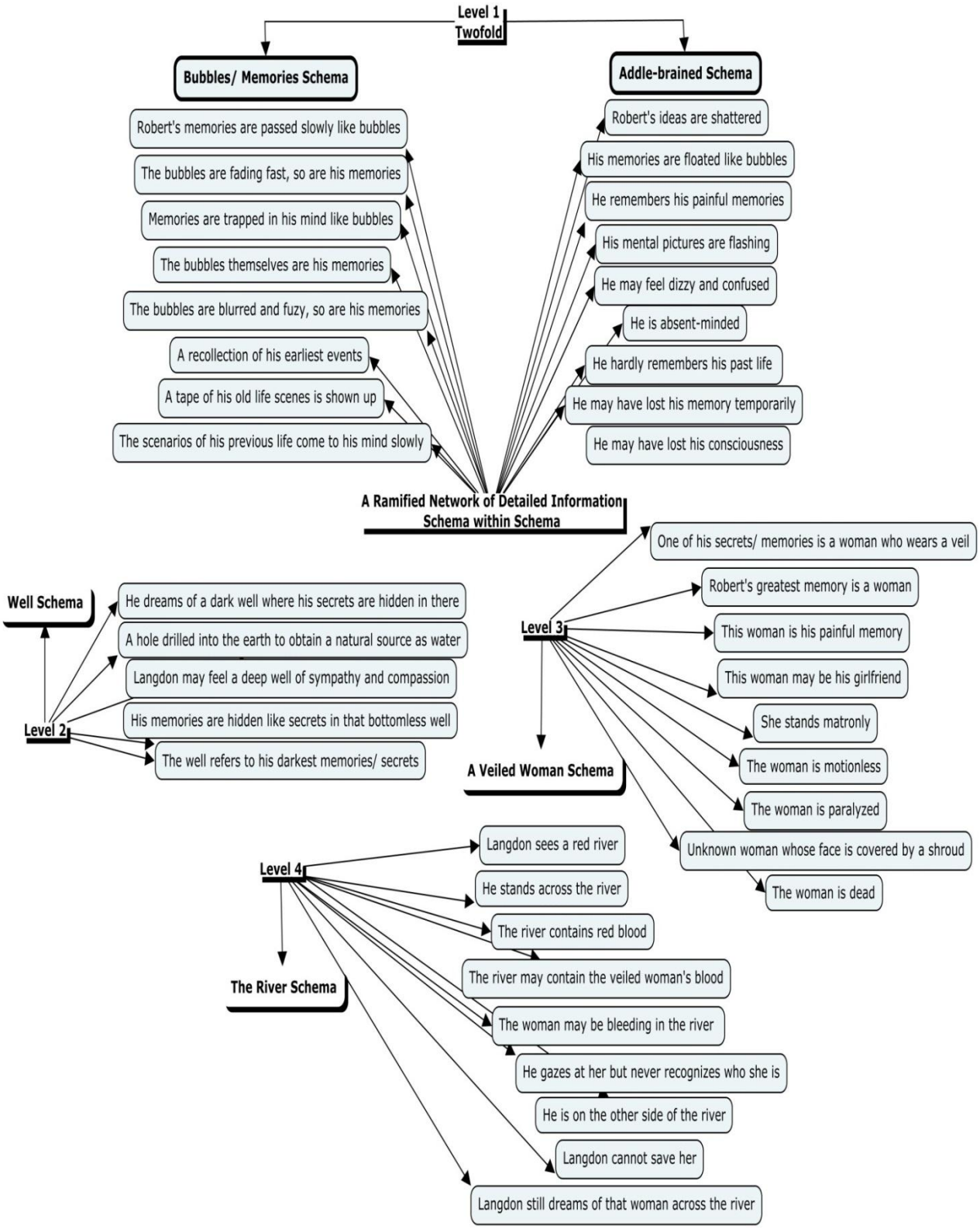


Figure 25 Levels of Detail Triggered in Brown's Opening lines of the 2nd Sample.

Following the textual headers shown in the extract (12) above, six schemata are activated with their pertinent detailed information. The BUBBLES/ MEMORIES schema and the ADDLE-BRAINED schema are the twofold hierarchal representations of the first level. As for the WELL, A VEILED WOMAN, and THE RIVER schemata, they respectively serve as portrayal representations for levels (2), (3), and (4).

If readers are mindful enough of reading this and the samples that follow, it is true that many fantasy-like images would be present in Brown's Inferno, but the narrator has based these on the incredibly hazy concept of "reality". It is the only spot where one can reside and/or make an effort to comprehend the surroundings. It must illustrate a specific facet of life so the reader is able to visualize or experience it.

This reality has been established by Dan Brown's Inferno, making readers expect every detail easier than making them expect a random selection of concepts happened to occur outside this reality, as in Alighieri's Inferno.

When reading Brown's Inferno, the readers' pre-existing schemata encounter a sort of cognitive challenge. As they try to comprehend literary texts, readers have the capacity to cause conceptual conflict, which is said to be a key element of literary texts. Nevertheless, sample two exhibits the triggering of unusually overextended levels of detailed information. This is shown in the figure above, where a ramified network of information is clearly displayed in the first level (i.e., two schemata within one level or schema within schema).

In terms of the other levels, the narrator makes his stylistic choices between levels (2) and (3), then moves on to the final level. When the narrator uses the textual headers, Bottomless Well, The Red River, and a Motionless Veiled Woman whose face is covered with a *shroud*,

readers are forced to come up with even more deviant details. Once more, readers' thoughts regarding DEATH are strongly influenced by these linguistic cues.

5.3.3 The SKD of Brown's Inferno/ 3rd Sample

Taking the third sample into account, readers grow accustomed to Brown's overly detailed schematic choices, which elicit unneeded extracted levels of detail. He this time decides abruptly and unexpectedly to disappoint the readers' overly detailed schematic expectations with drastically underspecified details of only one schema, the HOSPITAL schema.

Extract (13) The Opening Lines of Brown's 3rd Sample

I'M IN FLORENCE!? Robert Langdon's head throbbed. He was now seated upright in his hospital bed, repeatedly jamming his finger into the call button. Despite the sedatives in his system, his heart was racing.

Using the extract above as a guide, it appears that the narrator encourages the readers to be interacted with the textual cues provide in the third sample. The narrator makes explicit reference to specific linguistic cues while leaving his readers to fill in the blanks of the opening lines. In this textual sample, Brown makes a clear allusion to some schematic instantiations that evoke only one level with excessive details. Usually, these details are implied rather than explicitly stated because they are thought to be part of the reader and narrator's mutual schematic knowledge. The HOSPITAL schema, as shown in Figure (27) below, is what readers would expect the narrator to use so as to fill up the slots of all the familiar detailed information together.

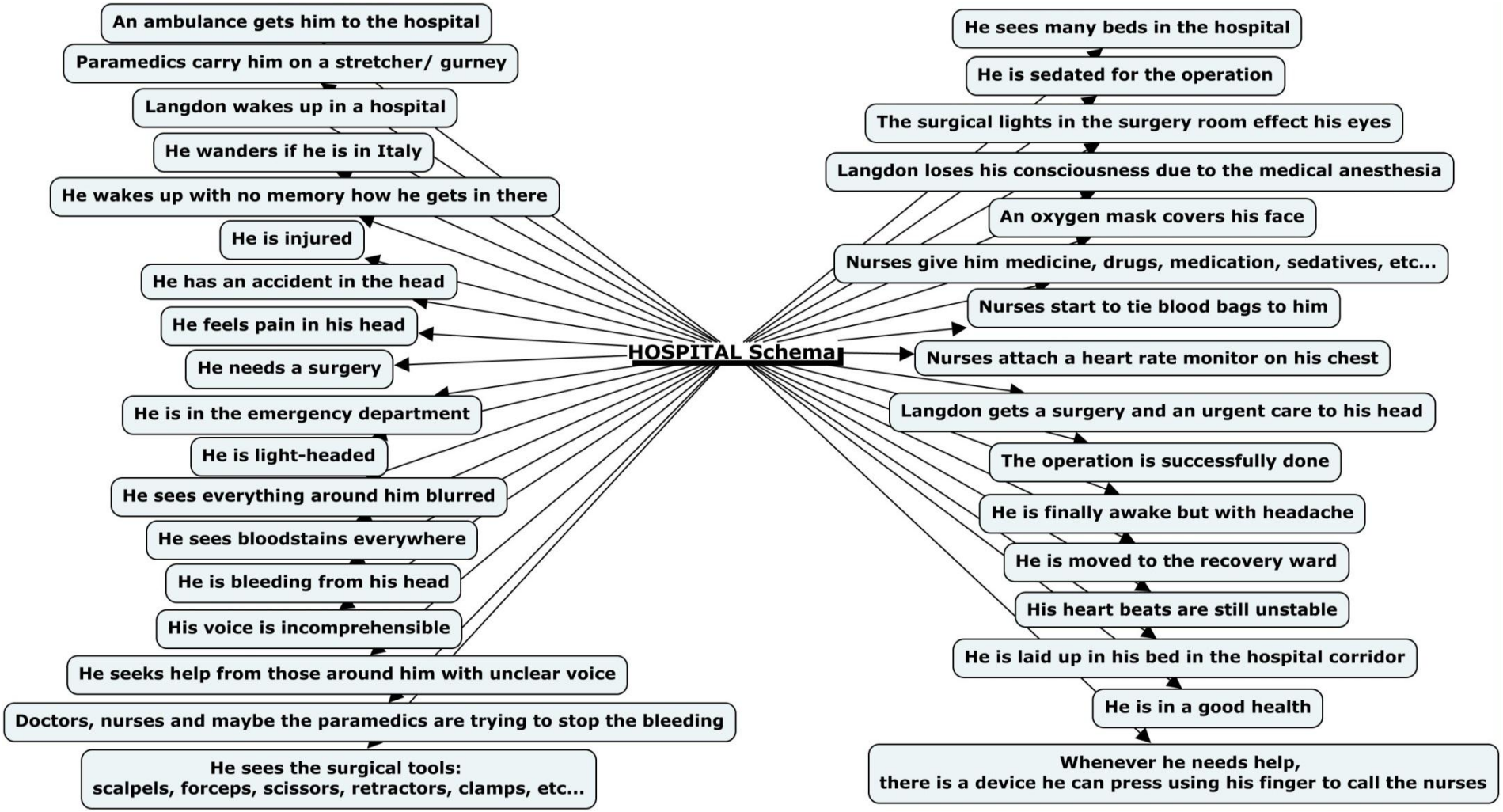


Figure 26 Levels of Detail Triggered in Brown's Opening lines of the 3rd Sample.

What is intriguing about Brown's Inferno, as opposed to Alighieri's Inferno, is that readers can take a moment to breathe to maintain a particular level of schematic expectations via the entire narration. This is because the HOSPTIAL schema's various schematic elaborations that are attached with variously detailed information are incredibly neutralized.

Through his protagonist "Robert Langdon", Brown draws the reader into the strangest and most unforeseen experiences by using the most basic detailed information in a schematic specification. What makes Brown's Inferno stands out is how even the most basic and everyday schematic details are triggered within the context of a realistic story, and yet schematic knowledge of the readers is deviated.

The narrator, however, provides ample space for his readers, using few opening lines of his third textual sample. This indicates that readers fall down under the umbrella of an excessive schematic deviation as a result of reaching too many details within one schema—the HOSPITAL schema.

Simply put, although the narrator employs a limited variety of textual cues in his opening lines, all of these linguistic headers refer to a single schema, which causes readers to generate an excessive amount of detail within the HOSPITAL schema. "How Langdon gets to the hospital", "why he is being there", and "what he sees there!', are matters that the reader implicitly has brought up using his prior knowledge—matters that the narrator does not address at all.

5.3.4 The SKD of Brown's Inferno/ 4th Sample

When going over a cognitive analysis of the fourth sample, Brown insists, at various points throughout the sample, on calling up all of the information that the reader has previously been anticipated to be familiar with and aware of:

Extract (14) The Opening Lines of Brown's 4th Sample

Five miles off the coast of Italy, the 237-foot luxury yacht The Mendacium motored through the predawn mist that rose from the gently rolling swells of the Adriatic. The ship's stealth-profile hull was painted gunmetal grey, giving it the distinctly unwelcoming aura of a military vessel.

The linguistic headers in the text above, for example, activate a very particular schema, the MENDACIUM (MILITARY) YACHT schema: *the coast, 237-foot, luxury yacht, motored, predawn mist, swells, the Adriatic, ship,* and *military vessel*.

The hierarchical encompassing of the different detailed information included in THE YACHT schema is depicted in Figure (28) below:

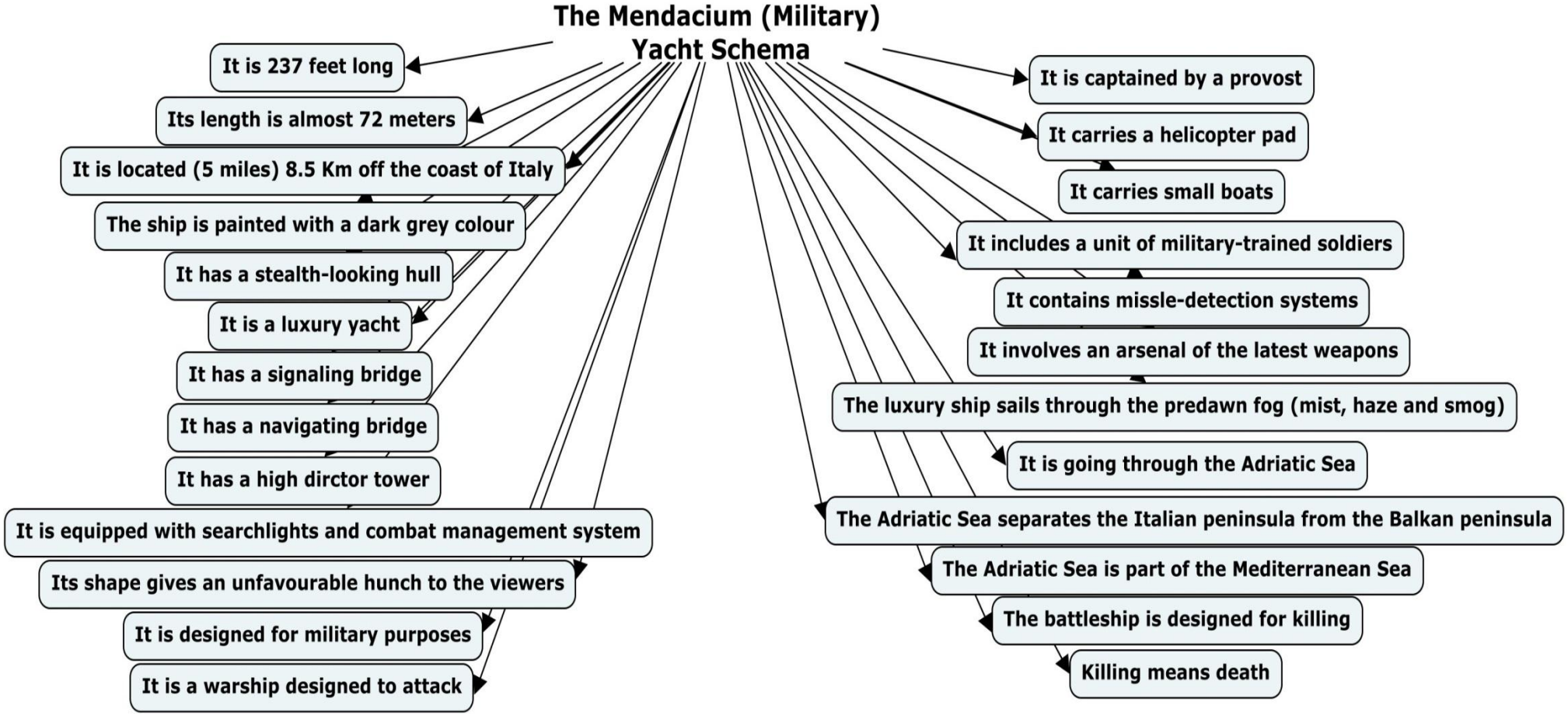


Figure 27 Levels of Detail Triggered in Brown's Opening lines of the 4th Sample.

As was the case in the previous sample, the narrator still emphasizes the reader's role in helping him navigate the boat of the opening lines of the fourth sample. Tying the narrator's ideas with the excessive amount of implicit details, the reader is invited to fill in the gaps left unnoticed by the narrator.

Why does the narrator specifically urge the reader to fill in the gaps that occur in his first lines of the sample at hand?, a question that raises doubt about what the narrator is intending to say in this regard!

Returning to what was discussed in Chapter Three (see Section 3.3), it can be said that the decision regarding the right amount of specificity or detail in a given schema ultimately depends on the narrator's *artistic* and *aesthetic objectives*.

Thus, the level of detail that is activated in a text—whether it tends toward underspecified or over-specified levels of detail —is likely an artistic result of the narrator's deliberate or accidental choice.

It is noteworthy that the narrator has ingrained the idea of **death** in the minds of his readers starting with the first lines of the novel, which are included in the first sample, and continuing to plant the same idea through the opening lines of the second, third, up to the fourth sample.

Consider the last few details in this sample (see Figure 28 above), which portray, for instance, that the image of the warship only ever leads to destruction and consequently "death".

Before throwing readers into the strange and enigmatic environment, it appears that Brown prefers to give them a lifejacket of extremely over-specified engagement with ordinary events, so to speak.

5.3.5 The SKD of Brown's Inferno/ 5th Sample

Going further to analyze sample (5), it prompts and evokes even more deviant and challenging schematic levels of detail. What makes sample (5) remarkable is the realization that there is no break this time to allow readers to settle on a certain level of schematic anticipations all over the textual sample at hand. As long as they stay within the boundaries of samples (3) and (4), readers become accustomed to the narrator's reduced schematic levels (i.e., only to one level), which stimulate pointless attainable detailed information. This time, the narrator unexpectedly and considerably chooses to crash the readers' lower schematic-level expectations by providing an exceptionally over-explained description of three totally different schemata.

Extract (15) The Opening Lines of Brown's 5th Sample

For an instant, Langdon felt as if time had stopped. Dr. Marconi lay motionless on the floor, blood gushing from his chest. Fighting the sedatives in his system, Langdon raised his eyes to the spike-haired assassin, who was still striding down the hall, covering the last few yards toward his open door.

Reading the text under the various linguistic cues, listed in the table above, activates three specific schemata. These three schemata are designated as THE VICTIM (level 1), THE PROTAGONIST (level 2), and THE VILLAIN (level 3). However, as shown in Figure (29), Cmap Tools clearly depict the hierarchal visualization of these schemata to show the various detailed information that readers may run into.

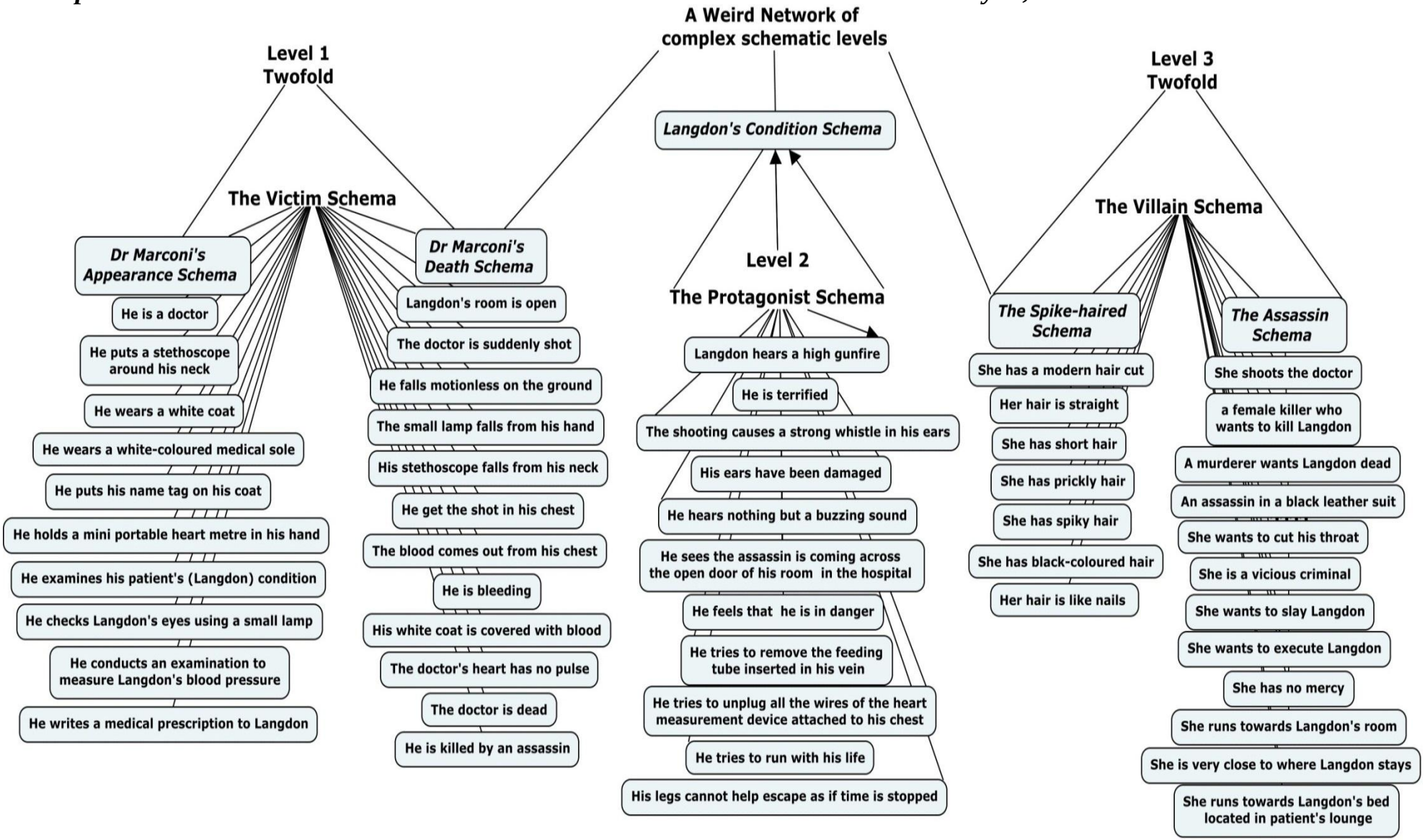


Figure 28 Levels of Detail Triggered in Brown's Opening lines of the 5th Sample.

Examining the representational diagram of the schematic knowledge readers can arrive at, one can see that the narrator keeps trying to create the idea of *death* in his readers' minds. This is evidently displayed by the very first level 'THE VICTIM schema'. While the textual words in the sample above initially create an extensive and exceptionally weird series of cognitive schematic levels, the narrator appears sufficiently skilled to signal his readers to expect whatever details are already known to them.

However, a *schema within schema* of linked details is depicted in the hierarchical diagram above. The victim's portrayal schema on the first level is expanded into two attached schemata. The first of which is the *doctor's appearance* schema and the second is where the narrator has empowered his readers to emerge the idea of *death*, represented by the *doctor's death* schema.

Moving forward to deal with the second level, it is represented by Langdon (the PROTAGONIST schema). The narrator here uses a very limited account of textual headers causing his readers in general to activate overextended details— a matter that makes their schematic knowledge deviates from what the narrator has already mentioned.

Keeping the wheel in the same direction, it is undeniably true that a deviation within a deviation exists within the second level. This is because readers, at first glance, expect all the predictable detailed information within the first level, which ends with a twofold schema. At a second glance, because the second level is one-fold, this expectation has been destroyed, resulting in a process known as internal deviation.

Still, internal deviation[28] is there within the third level. Simply put, readers in the second level have programmed their expectations on a one-fold schema, and then these expectations within the third level have taken another direction headed towards a twofold schema.

Whatsoever, the third level, represented by the VILLAIN schema, is a twofold schema. Each subsequent schema has its own distinct details. In this case, the narrator employs ambiguous textual cues that lead his readers to construct two distinct schemata: that of the spiky hair and that of the assassin. This is something that leaves readers dumbfounded as to what they are supposed to expect. But, *how does a murderer reveal his/her spiked hair? Is not it expected that the murderer always hides his/her head?*

As a result, the reader is compelled to create a scenario with two distinct schemata rather than just one, as illustrated in Figure (29). The reader builds up multiple pieces of information across two distinct levels within the hierarchical detailed levels .

Figure (29) shows up to be flexed between two directions: the highest schematic depiction, which could be reflected basically by the sentence "Dr. Marconi lay motionless on the floor," and the exceeding explanation, which could be portrayed thoroughly by an image of "the spike-haired", and even goes further into the depiction of "the assassin" herself.

[28] It triggers a sort of defeated expectancy and is used for signaling a point of climax or even marking a dramatic change.

5.3.6 The SKD of Brown's Inferno/ 6th Sample

Proceeding with the sixth sample, the narrator appears to have a sporadic thought style. This means that every time the reader moves to deal with the opening lines of the chapters, he or she encounters rather new concepts—concepts that will be carried on in the subsequent opening lines of the other samples. In Dante's novel, on the contrary, the opening lines are closely related to one another, immersing the reader into the different levels of the inferno.

For example, the narrator has mentioned a "woman wearing a veil" in the first lines of the second sample. Then, he continues the series of the same woman giving her a new specification "a woman with grey hair", and thus this is evident in the opening lines of the ninth sample.

This situation repeats itself in the fourth sample, the narrator first mentions the events involving "the spacious military yacht"; however, these events have been abruptly cut off in the opening lines of the fifth sample in favour of a complicated series of details that portray the events involving a couple of new characters, such as *the victim* and *the assassin*. The final events of the fourth sample are then covered in the sample at hand.

Extract (16) The Opening Lines of Brown's 6th Sample

The shrill ring of his phone drew the provost's gaze from the calming mist of the Adriatic, and he quickly stepped back into his stateroom office. It's about time, he thought, eager for news.

Following the textual headers mentioned in the aforementioned sample, for instance, activates the PROVOST schematic level with the reasonably anticipated details, see Figure (30) below:

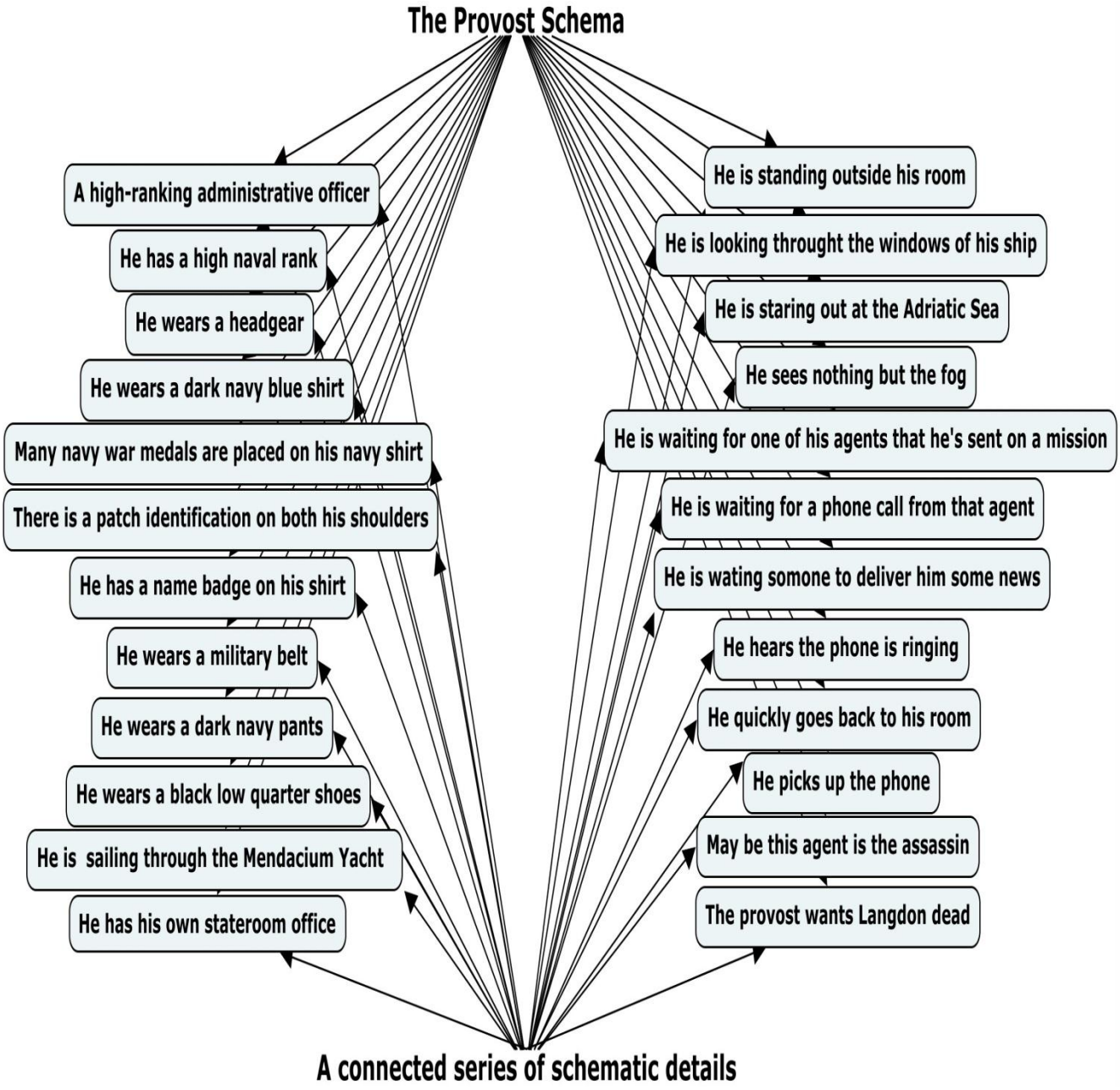


Figure 29 Levels of Detail Triggered in Brown's Opening lines of the 6th Sample.

With the aid of the concept modeling kit made available by *Cmap Tools*, the figure above is deciphered into a connected series of schematic specifics. The narrator here completes the fourth sample, providing a clear schematic instantiation. In this regard, the narrator appears to be working toward two goals: (1) schematization—each schema instantiation presented in the fourth sample appears to be detached and extended up in terms of broad generalizations; (2) elaboration—additional specifications and details are obvious in the sixth sample (i.e., a luxury yacht (sample 4) needs to have a provost (sample 6).

However, readers here would expect every traceable detailed information using their background knowledge. Even though there is only one schema that is triggered by the textual headers in this sample, the overly detailed interpretations are still present, and as a result, readers' schematic instantiations are deviated by these interpretations.

Furthermore, the narrator in this sample insists on instilling the idea of death in his readers' minds. For instance, the last details drawn intuitively in the figure above present the DEATH concept, as seen in the last few details included in the fourth sample. This places the narrator in a somewhat luxurious position, causing his readers to look around without eventually becoming bored. The novelist's style in this case proves to be highly intelligent as it allows his readers to immerse themselves in reading, which is something difficult for many fiction writers to pull off.

5.3.7 The SKD of Brown's Inferno/ 7th Sample

The narrator nevertheless continues to employ a sporadic cognitive style. This can be clearly seen in samples (3) and (5), where he describes a scenario in which Langdon is unconscious in a hospital bed and has little to no memory of how he ends up there. The serial events of the HOSPITAL schema have been shattered away in the fourth sample. Accordingly, the fifth sample continues the series of how the assassin is pursuing him in that hospital.

Following the intuitively drawn serial events of LANGDON's STATE schema in Figure (29), the textual headers of the seventh sample provide two more connected schemata: that of DR. BROOKS' STATE and that of THE TAXI and ITS DRIVER.

Filling in the details of what actually has happened to Langdon after all, the narrator uses *one to two-connected* schemata:

Extract (17) The Opening Lines of Brown's 7th Sample

LANGDON felt firm hands lifting him now … urging him from his delirium, helping him out of the taxi. The pavement felt cold beneath his bare feet. Half supported by the slender frame of Dr. Brooks,Langdon staggered down a deserted walkway between two apartment buildings.

Alternatively, the linguistic cues in the aforementioned sample—*firm hands, lifting, urging him, delirium, helping him,* and *getting out of the taxi*—are enough to link three distinct schemata, giving it one (LANGDON's STATE schema) to two-connected relations (DR. BROOKS and THE TAXI DRIVER schemata). *How is it possible that Dr. Brooks, who is petite, can lift and carry Langdon into the cab, who might be heavy, all by herself?*

According to readers' schematic knowledge, it's possible that the taxi driver may offer his hand to help Dr. Brooks lift and carry Langdon into and/or out of the cab.

However, Figure (31) below clearly visualizes how readers in general pull down the desired schema (e.g., LANGDON's STATE schema), and immediately begin applying every detail of such *cognitive bundles* as actions, preconditions, locations, roles, objects, etc., to the interpretation of the continuously input textual sample.

As a result of a way of schematic background, the activation of such levels of detail produces an ongoing process of cognitive deviation. Having various degrees of (over-) under-specification, this kind of cognitive deviation raises specific levels of *specificity*. As a result, a schematic challenge may only require the reader to access unexpected levels of detail from their already-existent schematic framework rather than smashing old schemata or building entirely new ones.

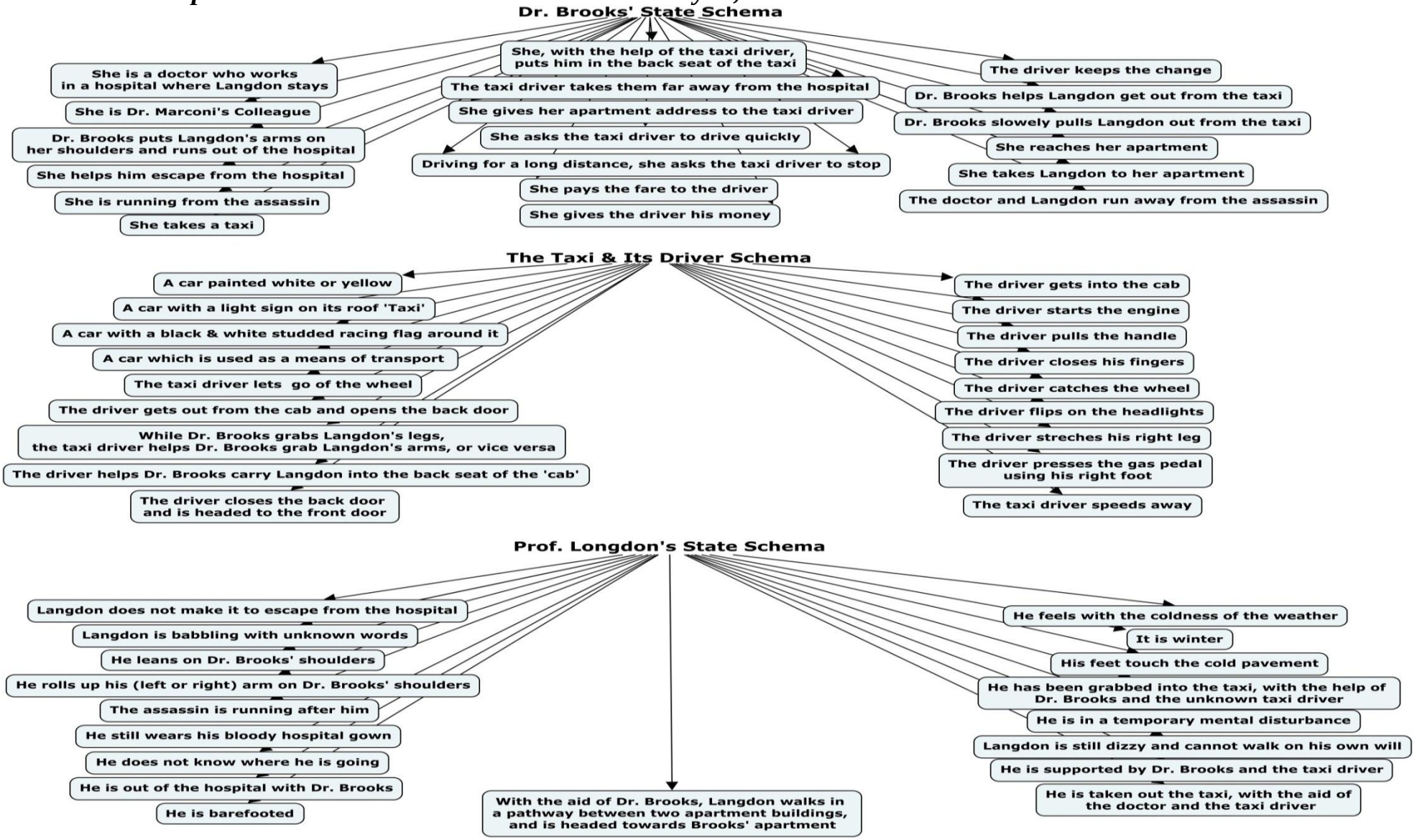


Figure 30 Levels of Detail Triggered in Brown's Opening lines of the 7th Sample.

5.3.8 The SKD of Brown's Inferno/ 8th Sample

Burnishing a certain degree of schematic knowledge deviation, the textual headers in the sample below continue to go over LANGDON's STATE schema. But this time, such a schema takes the form of a triple schema—an overloaded series of multiple schemata beginning with Langdon himself, moving through the need for a bathroom, and ending with the effects of caffeine.

Extract (18) The Opening Lines of Brown's 8th Sample

LANGDON shed his bloody hospital gown and wrapped a towel around his waist. After splashing water on his face, he gingerly touched the stitches on the back of his head. The skin was sore, but when he smoothed his matted hair down over the spot, the injury all but disappeared. The caffeine pills were kicking in, and he finally felt the fog beginning to lift.

The overextended details, triggered within the threefold schema, give a sort of cognitive/ schematic challenge in a way that could lead to the breakdown of the stereotypically expected and detailed information produced by readers, see Figure (32) below:

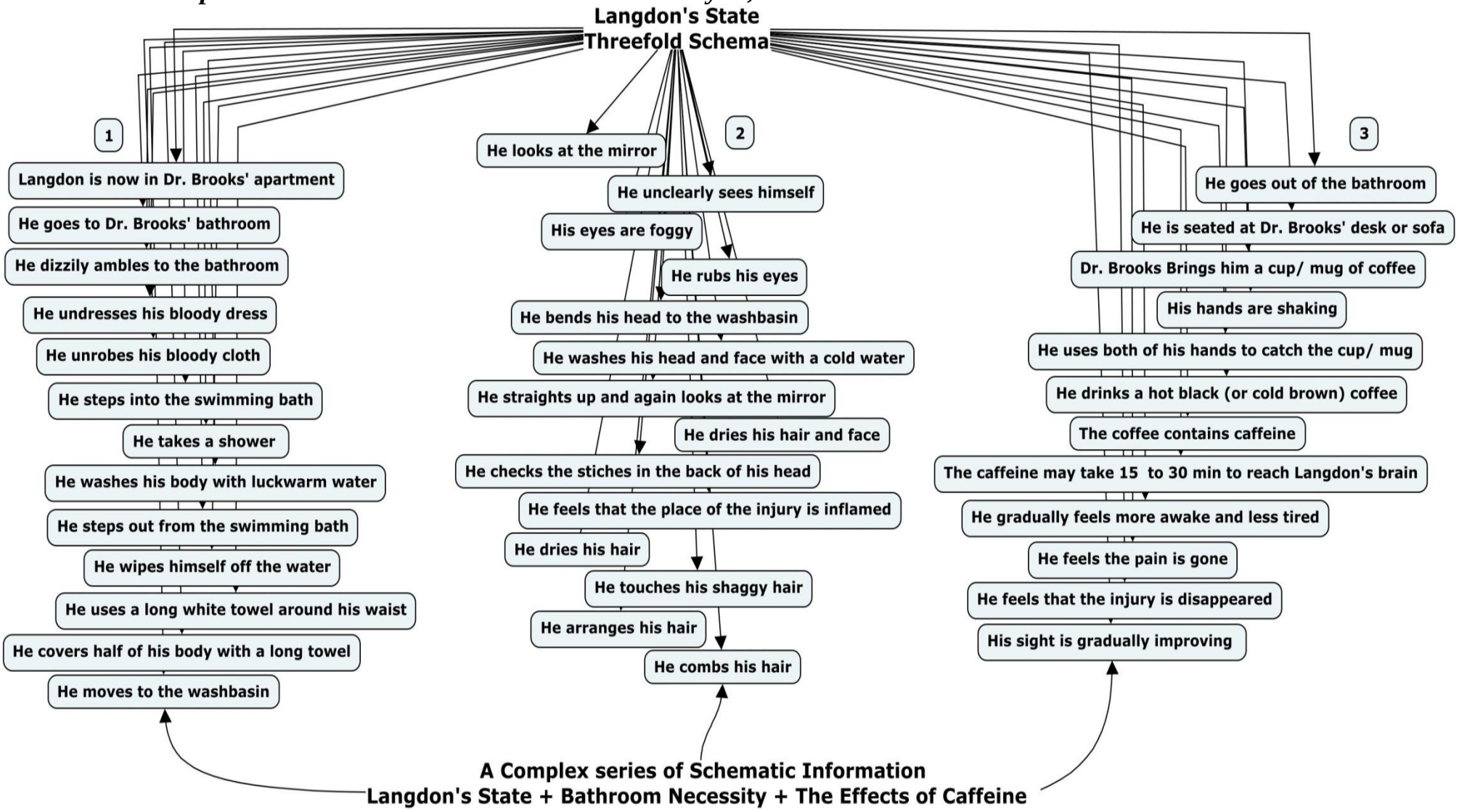


Figure 31 Levels of Detail Triggered in Brown's Opening lines of the 8th Sample.

However, readers' conceptual understanding might be inadequate not only in terms of the threefold level but also in terms of these bits of information that have already been triggered in the above-drawn figure. In layman's terms, each new schema that readers encounter gets contrasted to a conventional interpretation of it which has been previously preserved in the reader's knowledge.

Bringing together the pieces of the previous figures and corresponding them with those from the one above, the narrator sets up the events of his novel in parallel—as if he were defining the chapters of his novel in terms of specific and/or individual numbers (e.g., 1, 3, 5, etc.).

The textual headers, which are explicitly mentioned in the third sample (e.g., hospital, sedatives, and system), fifth sample (e.g., blood, sedatives, and system), and seventh sample (e.g., bloody, hospital, and apartment buildings), all reflect a considerable continuation in the sample at hand.

As the events of the current sample have their own roots, the reader begins to connect the previous ideas with the current ones, attempting to fill in all the gaps that surround Langdon's case.

The narrator then makes an extraordinary movement that reinforces suspense and curiosity in his readers' minds and pushes them into a thrilling world, as if readers address themselves upon arriving at this sample and wonder, "What is next?" Or "What will eventually happen to Langdon?"

5.3.9 The SKD of Brown's Inferno/ 9th Sample

Readers keep wondering what is happening with Langdon as they follow the textual packet headers mentioned in the sample below. They are actually on a path of producing overly detailed levels of information––a matter that puts their schematic knowledge in a rather perplexed and awkward position.

Extract (19) The Opening Lines of Brown's 9th Sample

LANGDON'S eyes shot open, and he drew a startled breath. He was still seated at Sienna's desk, head in his hands, heart pounding wildly. What the hell is happening to me? The images of the silver-haired woman and the beaked mask lingered in his mind. I am life. I am death. He tried to shake the vision, but it felt seared permanently into his mind. On the desk before him, the playbill's two masks stared up at him.

Even though the concept of "Inferno" in Brown's novel is hardly ever mentioned in any of the earlier textual samples, it is both ambiguous and implied in the current sample. The textual headers, for example, *the silver-haired woman, the beaked mask, I am life, I am death, the playbill's two masks,* and *stared up at him*, lack any association with the concept of Inferno as depicted in Dante Alighieri's Inferno. Rather, they set off the *mundane* and/or *earthly* Inferno, as shown in Figure (33) below:

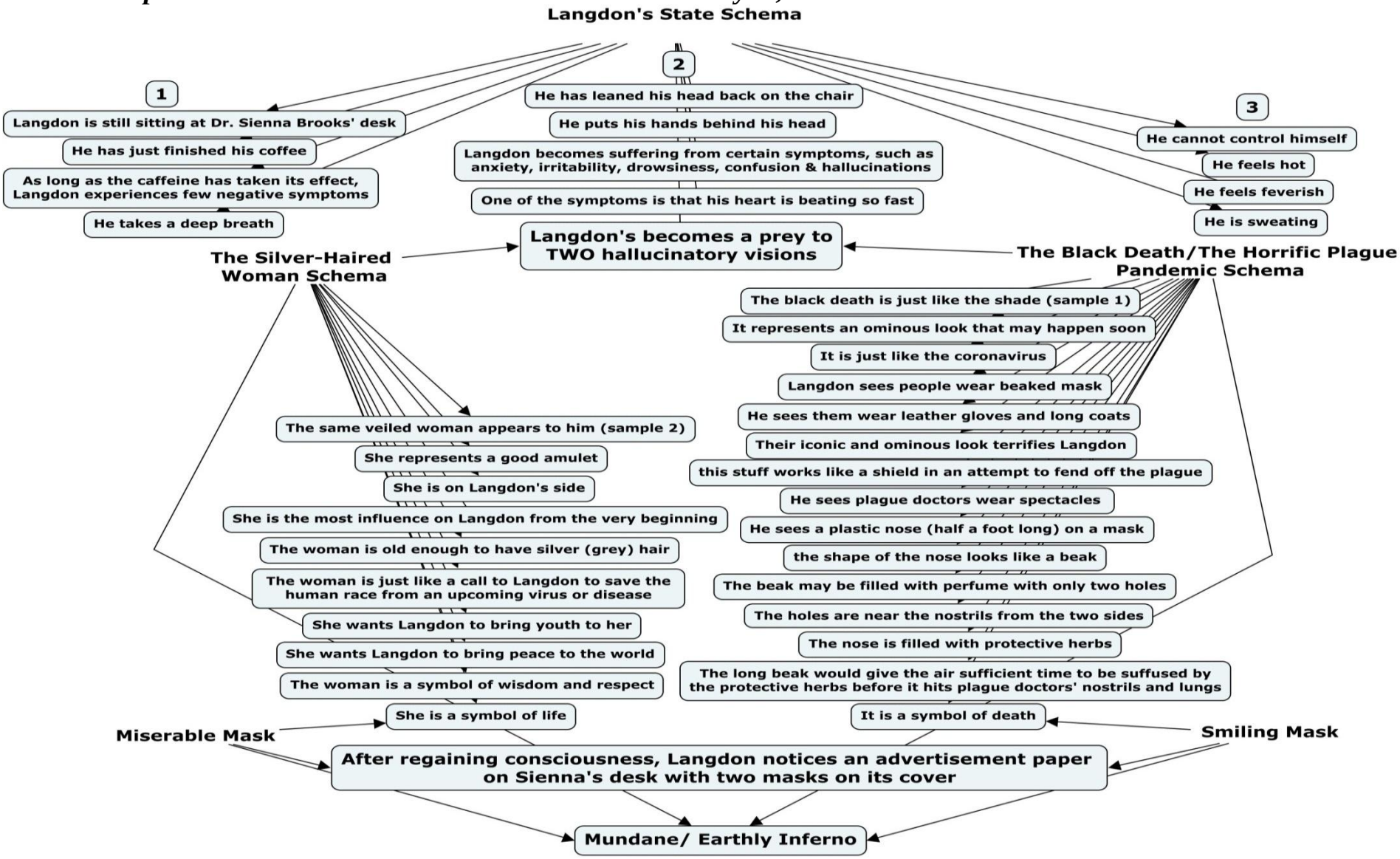


Figure 32 Levels of Detail of Mundane Inferno Triggered in Brown's Opening lines of the 9th Sample.

As stated in the title of this study, the concept of *Inferno* in Brown's novel[29] appears to be absent in the reader's schematic knowledge because the preceding textual headers (i.e., those of the previous eight samples) fail to provide any clear-cut clue where the concept of Inferno is located. This gives the impression that Brown's style exceeds expectations, breaking down readers' schematic knowledge in general and putting them at a significant loss of schematic knowledge in particular.

In order to figure out where it is actually located in Brown's novel, 'Inferno' necessitates readers to look all over the area and dive through a confusing network of schemata leading their schematic knowledge to be deviated by means of *overextended detailed information*.

Regarding this, the diagram produced by *Cmap tools* is nothing more than a fusion of samples (1) and (2). If readers carefully read Brown's opening lines of the first sample up to the end of his opening lines of the ninth sample, they would startlingly notice that the current sample has a hidden and profound connection with both the first part of the first sample (i.e., the SHADE schema) and the first part of the second sample (i.e., a VEILED WOMAN schema).

That is to say, at first glance, the 'SHADE' schema in the first sample appears to be cleverly linked to the 'BLACK DEATH' or 'HORRIFIC PLAGUE' schema represented by the textual headers (I am death, and the beaked mask). At a second glance, the 'VEILED WOMAN' schema in the second sample is automatically connected with

[29] Readers are transported by Brown's Inferno into the depths of our enigmatic world (the inferno of the everyday).

the 'SILVER-HAIRED WOMAN' schema represented by the linguistic cues (I am life and Silver-haired woman), as intuitively shown in the diagram above.

Cognitively speaking, this makes our protagonist 'Langdon' struggle between "life" and "death", to the point where readers may adopt Langdon's perspective and believe that a *conspiracy* is about to take place—a conspiracy that could kill half the population and cause "DEATH", much like the *horrific plague*[30] that wiped out millions of lives in ancient and medieval time.

Due to the recent deaths of millions of people caused by the pandemic coronavirus in (2019), readers' schematic knowledge may shift their attention in this arena, and still, their schematic knowledge deviates from what is expected in terms of the textual sample at hand.

5.3.10 The SKD of Brown's Inferno/ 10th Sample

Dealing with the cognitive analysis of the last sample in this study, the narrator still adopts a sporadic cognitive style. This is because this sample has independent antecedents that can be traced back to the fourth and sixth samples represented by the MENDACIUM (MILITARY) YACHT and the PROVOST schemata respectively.

As shown in Extract (20) below, the narrator also provides additional information that is finally utilized to determine what the SHADE is and how the conspiracy is actually at play.

[30] Millions of people died in several outbreaks brought on by the plague in ancient and medieval periods. It is a transmissible disease that dates back thousands of years.

Extract (20) The Opening Lines of Brown's 10th Sample

BELOWDECKS on the luxury vessel The Mendacium, facilitator Laurence Knowlton sat in his sealed glass cubicle and stared in disbelief at his computer monitor, having just previewed the video their client had left behind… The video shows a man calling himself 'the Shade', "soon you'll know what I left behind!".

Following the linguistic cues mentioned in the table above, the narrator builds up two distinct schematic levels of detail: that of the PROVOST's ASSISTANT schema and that of the SHADE schema, see Figure (34) drawn below:

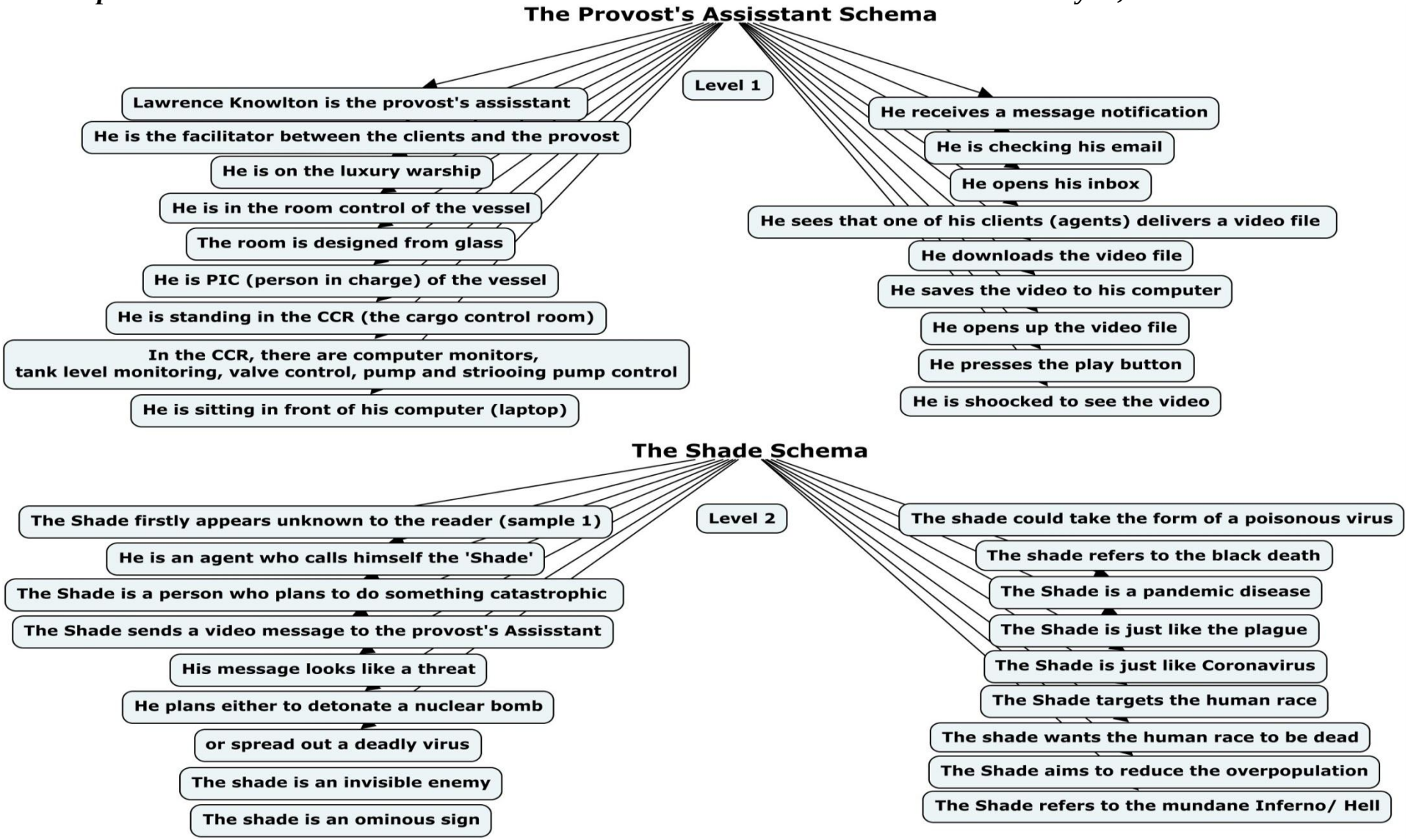


Figure 33 Levels of Detail of the PROVOST's ASSISTANT and the SHADE schemata Triggered in Brown's Opening lines of the 10th Sample.

Focusing on Brown's style, readers are introduced to new characters in almost all of the opening lines of all the textual samples, leading them to wonder whether the opening lines of the other chapters (which are not included in this study) will continue their erratic chain of events. Nevertheless, Brown does not want everything to be obvious to the reader right away since the events in his work are distinctive and it is challenging for the reader to look behind them.

Ending his opening lines of the tenth sample with the SHADE schema, the narrator starts his opening lines with the same schema (see the first sample). It seems that he seeks to build up mystery and suspense in the minds of his readers. Filling in the gaps with the reader's own schematic knowledge is a difficult task—a matter that could raise the degree of deviation not only in terms of the implicit schemata engaged in the opening lines but also in terms of the unstable events scattered over the other samples.

Take the current sample as an example, the narrator here uses the PROVOST's ASSISTANT schema which has its own roots in samples (4) and (6). Almost all readers are left wondering if Brown is a narrator or a storyteller. Because of Brown's peculiar style, which differs much from Alighieri's style, such an issue may arise in the minds of readers. Dante's writing style is so consistent that his novel is frequently all about line-to-line style, syntax, timing, flow, dialogue, and so on.

Dan Brown's writing style is basic, awkward, and repeated, and his characterizations appear unskilled and filled with cliché. This indicates that Brown's writing style is ad hoc, and what differentiates him from Dante[25] is that Brown is a strong storyteller rather than a strong writer like Dante. This is obvious in his work on the conspiracy that is

[25] See Inferno Revealed: From Dante to Brown, by Mark Parker and Deborah Parker (2013).

represented by the SHADE schema—a conspiracy that he implicitly hides in the shape of Inferno.

In the remainder paper of this section, this study will concentrate its efforts on quantifying the SKD's linguistic effects. Due to the fact that the *Cmap Knowledge Toolkit* only demonstrates how the schematic deviation is hierarchically represented using different levels of detail on the cognitive level, such a type of deviation has its own side-effects on the linguistic level and will therefore be measured linguistically via *WordSmith Tools* (see Section 4.6.3).

5.4 Measuring the Linguistic Side-Effects of SKD

Adopting his idea of the linguistic side-effects resulting from a schematic level, Cook (1994: 10) unequivocally asserts that deviations on the schematic level may only be an unavoidable result of deviations on the linguistic level. As a result, a linguistic deviation that is considered literary and aesthetic must be equivalent to a deviation at the level of the readers' evidently shared schematic knowledge. In this case, readers' schematic knowledge consists of theoretical levels of cognition which describe how higher-level concepts are constructed from lower-level building blocks.

However, the schematic levels, drawn by *Cmap Tools* so far, hierarchically and intuitively show how readers' minds in general move from general information (e.g., the textual samples) toward more specific details (e.g., readers' overextended or underextended interpretations). Therefore, those specific details drawn cognitively by Cmap tools will be carried out linguistically by WordSmith Tools.

In other words, this study is going to extract the detailed information from *Cmap Tools* and put them in a Plain Text Format (i.e., TXT) file so that the user-friendly software *WordSmith Tools* can

calculate the TTRs, those of the original textual samples and those of the levels of detail resulted from *Cmap tools*, in a rather accurate way, see Table (4) below:

Table 4 The TTRs of the Textual Samples and those of the Levels of detail

Sample No.	The TTRs of the Original Textual Samples		The TTRS of Levels of Detail Resulted from Cmap Tools	
	The TTRs of Dante's Textual Samples	The TTRs of Brown's Textual Samples	The TTRs of Dante's Levels of Detail	The TTRs of Brown's Levels of Detail
1	0.89	0.78	0.41	0.52
2	0.81	0.84	0.48	0.43
3	0.65	0.80	0.55	0.51
4	0.81	0.82	0.48	0.55
5	0.84	0.85	0.49	0.45
6	0.76	0.81	0.55	0.56
7	0.87	0.82	0.51	0.35
8	0.82	0.77	0.45	0.44
9	0.91	0.74	0.52	0.52
10	0.86	0.88	0.49	0.45
Overall	0.56	0.58	0.32	0.30

Calculating the number of tokens in the data in relation to the number of types (i.e., type/ token ratios, TTRs) can provide an indication of the quantity of textual words used in the samples being investigated.

For example, the sentence (I felt sad because I saw my father was sad) has (ten) tokens (I, felt, sad, because, I, saw, my, father, was, and sad) but only (eight) types (I, felt, sad, because, saw, my, dad and was).

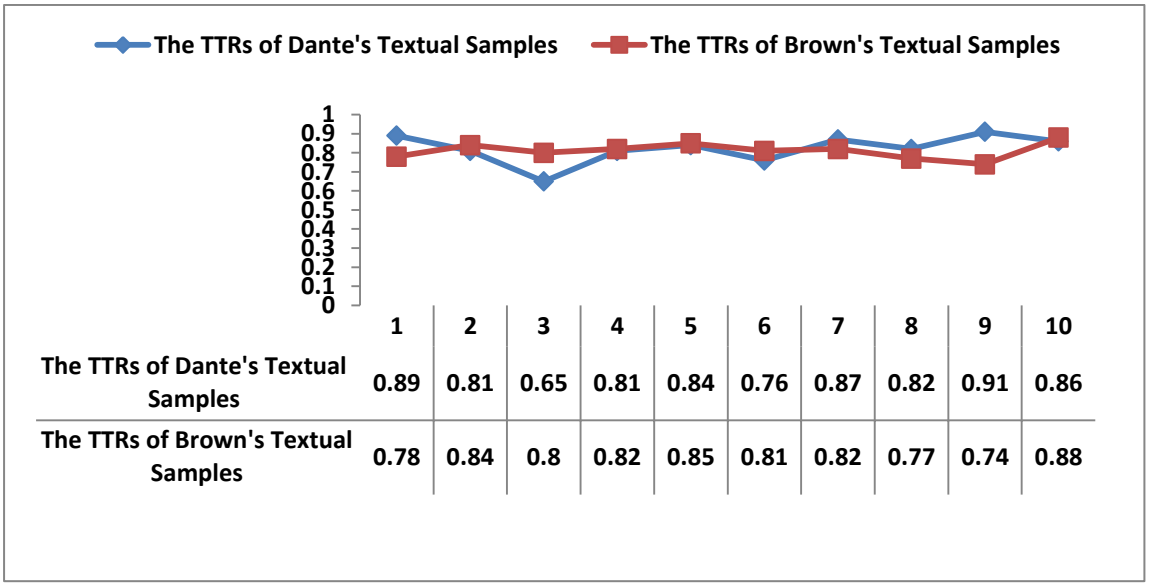
As a result, this sentence's type/token ratio is (8 /10 = 0.8) types per token. As the size of a text increases, so does the total number of types. The likelihood of any token that represents a new type is going to be lower (Baker et al., 2006: 150). Thus, the textual samples used in this study are approximately equal in size. A high TTR indicates a high degree of linguistic deviation, whereas a low TTR denotes a low degree of linguistic deviation.

This calculation will assist in making this study serve its own favorable position in reaching accurate and reliable conclusions and promoting what comes from the cognitive/ qualitative analysis.

What attracts the researcher's attention is the diversity of TTR values each textual sample reveals. This aids the researcher in observing:

1. which novel gains a high luxurious amount of textual/ linguistic headers;
2. which novel linguistically scores the highest degree of deviation.

Handling the two points raised above, this study is going to visualize firstly, the TTRs mentioned in the first two columns (i.e., those of the original textual samples of both novels) and secondly, the TTRs calculated in the last two columns (i.e., those of levels of detail obtained from Cmap Tools). This will be accomplished using an Excel spreadsheet, as shown in the diagrams (35) and (36) below:



	1	2	3	4	5	6	7	8	9	10
The TTRs of Dante's Textual Samples	0.89	0.81	0.65	0.81	0.84	0.76	0.87	0.82	0.91	0.86
The TTRs of Brown's Textual Samples	0.78	0.84	0.8	0.82	0.85	0.81	0.82	0.77	0.74	0.88

Figure 34 The TTR Curves of both Dante's Textual Samples and Brown's Textual Samples

The TTR curves, shown in the graphic representation above, reveal an exceptionally luxurious quantity of textual/ linguistic headers scored in the twentieth samples chosen sequentially from the two Infernos.

Despite the fact that each writer's linguistic repertoire (i.e., linguistic cues) differs and the samples have nearly the same number of tokens (i.e., opening lines) about (500), the TTR values between the two novels act rather strangely and their curves extend ahead in an unsteady manner.

However, the samples with the highest TTR values are the richest in terms of their textual headers. With lowest TTR values ranging from (0.65) to (0.74) and maximum values ranging from (0.88) to (0.91), Alighieri's and Brown's opening lines unexpectedly, but distinctively, come close to one another. Thus, Brown's use of linguistic headers seems so much richer than Alighieri's.

Fulfilling the final step of this study, the researcher is undoubtedly going to pair up the TTR values scored for 'Levels of Detail' extracted

from Cmap Tools in order to determine which novel, Alighieri's or Brown's, displays the highest degree of linguistic side-effects resulting from a deviation in readers' schematic knowledge, see Figure (36) below:

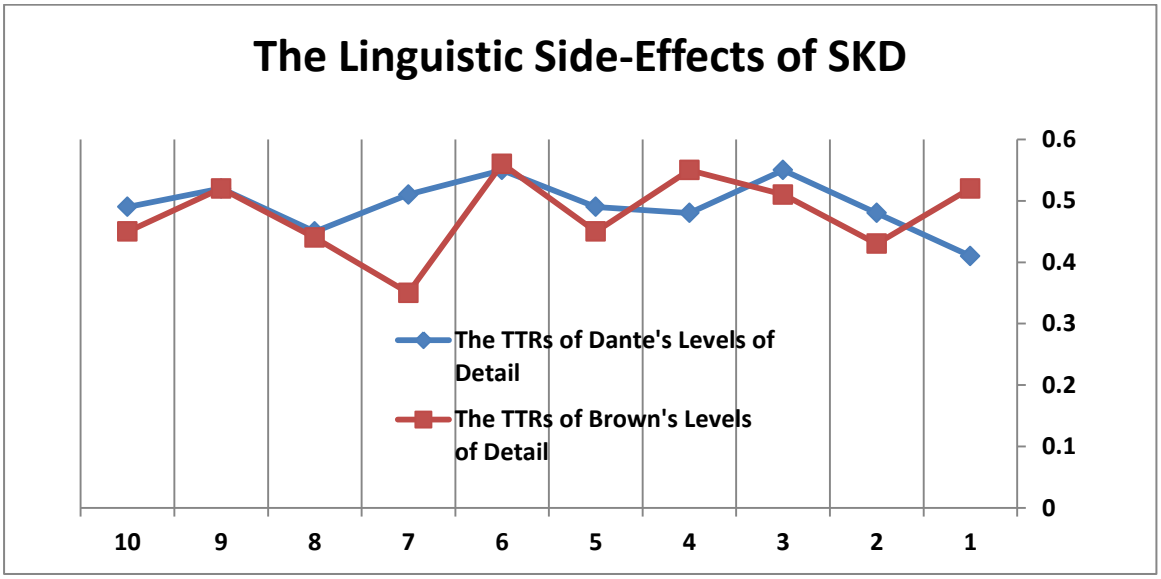


Figure 35 The TTR Curves of Levels of Detail Resulted from Cmap Tools (Those of Alighieri's and Brown's)

The quantitative consistency of the curves presented in the figure above provides an unavoidably occurring track to sketch out a very concrete proof of linguistic side-effects of schematic deviancy belonging to the two novels. Alighieri's novel has the highest TTR value rate (0.32), while Brown's has the lowest (0.30).

Though the overall value of TTRs is nearly the same, it is evidently true that Alighieri's samples may be rightfully attributed to him as a result of their own great textual multifariousness. On the other hand, Brown's TTR values do give an indication that there is a deviation. Yet, Brown's samples as a whole have a lot of repetitive linguistic headers (or

tokens), and hence cannot be trusted to assume the same likelihood as those that belong to Alighieri.

5.5 Results and Discussion

After completing the two analyses, focusing on cognitive stylistics of SKD and qualitatively linguistic side-effects resulting from SKD, the researcher's next task is to interpret and discuss the study's findings. The two literary works examined in this study diverge in their presentation of the concept of Inferno. Within the framework of Schematic Deviancy, the choice of how much specificity or detail to include in a particular schema ultimately depends on the author's creative and stylistic intentions.

The degree of information that is generated in a text—whether it tends toward underspecification or overspecification—is probably an aesthetic result of the writer's conscious or unconscious decision. Thus, the text creator's creative intents and aesthetic goals are intended to influence this decision.

As stated in Section (3.3), Cruse (1977: 163) mentions two processes of the aesthetic effects of levels of detail: one is connected to 'deemphasis' (i.e., underspecification); the other to 'emphasis' (i.e., overspecification). Such a utilitarian binary brings readers back to the genre of literary work that both Alighieri's and Brown's Inferno belong to.

Dante's Inferno, on the one hand, is presented through extremely fantastical pictures, such as ragged souls tortured in fire, screaming insane sinners bathed in unending rains of ice, gloomy castles and black towers wrapped in filthy smoke, and so on.

These depictions of the cursed, of the severe punishment being poured out in the realm of hell for crimes committed on earth, have pervaded Western civilization's collective mentality, and Dante's fantastical journey to the netherworld has influenced the thoughts and fantasies of numerous artists, musicians, philosophers of religion, politicians, writers, and even readers of the new world.

Linking the usual to the exceptional, or the predictable to the unexpected, appears to represent a type of balance in Dante's Inferno. As a result, the SKD, which is produced by providing the most recognized and recoverable default characteristics, defamiliarizes readers' typical experience of viewing the world around them.

What is notable about Dante's journey (particularly the first ten chapters' introductory lines) is that every activation of the most ordinary and conventional level of schematic specifications is either complied with or guided by a weird schema. Readers, through Dante's style, appeal to the most known levels of detail in a schematic explanation as a way into the oddest and most mysterious events, then progressively to the most astonishing specific details in an attempt to describe what HELL looks like.

In narratives where excessively detailed information is provided, readers tend to deviate from the intended interpretation of the narrator. The abundance of detailed information leads readers to form their own interpretations, diverging from the original intention of the narrator. For instance, the DRIVING schema shown in Figure (15) is immediately followed by a rather strange LONELINESS schema displayed in Figure (16).

Put differently, throughout the first ten chapters of Dante's Inferno, readers are continuously engaged with a constant flow of

information, leaving little room for them to establish specific levels of schematic expectations.

The readers' SKD is what matters in this study. It is not merely affected and provoked by the linguistic headers the narrator offers in his textual samples, but also their schematic knowledge lacks an in-depth comprehension of envisioning the inferno itself, (i.e., nobody has ever gone to the underworld and witnessed what is going on there, and then returned with specific descriptions of what and how the inferno looks like). This reflects another sort of deviation, that is internal deviation.

The only information the narrator offers is an explicit set of words (linguistic cues), which forces readers to dig up here and there for the sake of figuring out a particular interpretation. But when things turn out the other way, readers are forced to comply with SKD. This is undoubtedly due to the hierarchically organized nature of their schematic knowledge in relation to the familiarity within which they utilize it to manage their daily lives.

In essence, readers can experience two types of deviation: external deviation, which is influenced by the textual headers in Dante's opening lines, and internal deviation, where readers form incorrect expectations that contradict the narrator's intended message.

In this manner, their schematic knowledge deviates from the textual cues in more ways than only going into extreme levels of over-specifications (external deviation). It also deviates internally from the conventions the narrator wishes to convey to his readers—conventions that are generally accepted by critics.

Tackling the first kind of deviation, readers externally deviate from what the narrator produces in his textual samples; see for examples figures (15) to (24).

As for the second type of deviation, readers internally deviate from what the narrator's intended message is about. Take the DRIVING schema drawn in Figure (15) as an example, there are no 'driving car', 'road' or 'street' schemata at all in the first textual sample. All what is referred to in that sample is that the narrator goes on an internal journey to the netherworld— where he imagines the gates of Inferno or Hell as if he were dead and his soul were taking the lead.

Furthermore, readers, using their prior knowledge, begins recognizing the concept of Inferno in terms of the textual indicators that are brought out specifically in the fourth sample. When the implicitly recovered schema, such as the 'SLEEPING' schema, is activated, readers will definitely engage it with the encrypted schema of 'DEATH'. The THUNDER schema (whose hidden schema is the FEAR schema) and the INABILITY schema (whose hidden schema is PARALYZED BODY/ CORPSE schema) are also examples of this matter .

Initiating such concealed schemata causes readers' schematic knowledge to go through more deviated detailed information. These schemata also serve as a prelude to the continual series of Inferno, which in turn connects the first gate of the Inferno with the second, the third with the fourth, and so on all the way to the seventh gate.

This shows how the narrator deploys a somewhat distinctive and heavily complex style, pushing his readers to jump thoroughly into the sea of mystery without giving them a lifejacket of extraordinarily overspecified familiarization with common life events, so to speak.

Seven hundred years after Dante emerged from the depths of hell with the sky in his eyes, Dan Brown, a former English teacher in New Hampshire and the son of a devout Christian mother and a textbook

author father, starts writing his fourth thriller novel portrayed by Robert Langdon.

His concept of Inferno is presented in a way that turns Dante's destination of the Middle Ages on its head as Brown thrusts his fictional hero. He presents Inferno here and now within the modern world where people live in today.

To put it another way, Brown portrays the concept of Inferno realistically through genuine people like Robert Langdon. As if Langdon were an everyday person and no longer simply a character from a novel. He is you, me, the typical person navigating life, trying to do the right thing but frequently falling short and running against a number of obstacles. The act of reading this work will ultimately activate an infinite number of schemata—indeed, a strange network of complicated schemata—regardless of what the reader decides to choose.

The underlying concept of inferno begins as soon as readers see Langdon awakening in a metaphorical hellish scene. He is in a hospital bed, suffering from a gunshot wound to the head, and is unable to recall anything, see Figure (27). This leads us back to Dante's inability to locate his location or recollect the events that brought him to this painstaking situation (see Figure (18) represented by the SLEEPING schema to 'DEATH' schema; the THUNDER schema to 'FEAR' schema; and the 'INABILITY' schema to 'PARALYZED BODY' schema).

While Dante's images of the Inferno are extremely fantasy-like, Brown's Inferno takes the opposite direction, presenting its concept in terms of 'Reality'—his concept of the Inferno is presented in terms of the misdeeds of others. This is shown in Figure (33) when readers naturally and predictably activate the schematic details of mundane/earthly Inferno. Relying solely on the textual headers 'I am

life' and 'I am death' referred to in sample (9), readers might conclude that Langdon feels imprisoned and confines himself between four walls (i.e., between 'life' and 'death').

What is more, sample (10) ends all the second thoughts revealing that Brown's Inferno is nothing like Dante's—it's all about a mundane Inferno where a conspiracy conceals itself in the shape of a 'SHADE'.

In similar vein, Brown ends his tenth sample with the DEATH concept generated by the SHADE schema and then focuses on the same topic in his first textual sample. In keeping with the same concept, sample (2) clearly triggers "Death" since the linguistic cues like "red river," "motionless," and "shroud" cause readers to schematically recall "Death" specifications. Still in the other samples, e.g., (4), (5), (6), (9) and even (10), the narrator keeps hammering home the concept of death in his readers' minds.

Down the line, Brown uses a sporadic thought style: every time readers move to continue reading, their schematic knowledge is suddenly broken down. Instead of having connected opening lines of his novel, Brown's style surprises his readers by cutting out the opening lines of each chapter within his novel. Readers in this regard starts reading about a particular idea, then in the next opening lines that idea has been cut out and, in turn, will be subsequently proceeded its chain of events in other opening lines. This contrasts Dante's inferno: all of his opening lines are intertwined allowing readers to stay in line with the different levels of the inferno.

This even makes readers raise the degree of their schematic deviation—not only in terms of the overspecified or underspecified levels of detail—but also in terms of the unstable events scattered over the other samples, see sample (10), for example, which has its own roots in samples (4) and (6).

Finally, Brown's own style makes readers directly go that way. His style goes through the use of real-life situations in a rather redundant way. Hence, these real-life situations are experienced by all readers. Through his opening lines, he generates mysterious thoughts while conveying his true emotions via Langdon to readers (i.e., because he is "the guy he wish he could be").

Simply put, the narrator makes the point that Inferno is not only a place where sinners go after they die; Inferno is also a real place where a person lives right now, in his life, before he dies.

As a concluding word, it is true that many fantasy-like images would be present in Brown's Inferno, but the narrator has based these on the incredibly hazy concept of "reality". It is the only spot where one can reside and/or make an effort to comprehend the surroundings. It must illustrate a specific facet of life so the reader would be able to visualize or experience it.

This reality has been established by Dan Brown's Inferno, making readers expect every detail easier than making them expect a random selection of concepts happened to occur outside this reality, as in Alighieri's Inferno. While the concept of "Inferno" alludes to a place where sinners go in Dante Alighieri's extraordinary piece of writing, it really refers to the place where sinners breed in Dan Brown's work.

Whether the concept of inferno is shown using fantastical images or actual infernal ones, readers create overly-extended and/or under-extended schematic levels of information, causing their schematic knowledge to be deviated from what the two narrators have in their buckets. This has been precisely investigated and effectively proved through using Cmap Tools.

Last but not least, this study has used WordSmith Tools to measure the TTRs of the linguistic side-effects that are resulted from the SKD.

Comparing the TTRs of the linguistically side-effects of Dante's textual samples with those of Brown's, both revealed a rather slight difference in their graphical behaviour. Although Brown seemed to utilize linguistic headers in a far more sophisticated way than Alighieri, Alighieri's textual samples scored the highest degree of linguistic side effects. This in turn suggests that Dante Alighieri's literary work is written using extremely difficult headers that cause readers to come up with excessive degrees of detail, see the Figures: (35) and (36). As a result, the linguistic deviation, measured in terms of TTRs in both textual samples, is nearly identical to the deviation that occurred at the schematic level.

Summary of Results and Discussion:

1. Textual/ linguistic headers play a crucial role in setting the tone, context, and guiding readers' understanding of the narrative. They serve as signposts or cues, directing readers towards specific schemata or mental images within the literary work.
2. The degree of deviation in readers' schemata is cognitively represented via the use of Cmap Tools. These tools hierarchically show how readers' interpretations deviate from the original intentions of the novelists. This analysis shed light on the influence of linguistic cues and textual headers in guiding readers' understanding of the inferno.
3. Cmap Tools visually represent readers' interpretations and their cognitive processes, offering a comprehensive view of how different textual elements and linguistic headers elicit specific mental images and schemata. The visual representations facilitate a better comprehension of the cognitive dynamics at play in readers' minds when encountering the "inferno" in both literary works.

4. Dante's Inferno and Dan Brown's Inferno display distinct presentations of the concept of "Inferno". Dante's work features fantastical imagery, influencing Western civilization and inspiring various artists and thinkers, while Brown's Inferno portrays a realistic concept within the modern world.
5. Dante's style strategically balances ordinary and weird schemata, guiding readers into unique and mysterious events. In contrast, Brown's Inferno employs a surprising style, breaking the flow of ideas in opening lines, leading to increased schematic deviation.
6. Readers' SKD is influenced by textual cues but lacks in-depth comprehension of envisioning the concept of "inferno" in both novels, causing internal deviation from the authors' intended messages.
7. Both literary works prompt readers to create overly-extended and/or under-extended schematic levels of information, deviating from the novelists' original intentions.
8. In Dante's Inferno, the higher TTRs observed in the textual samples suggest that Dante employed a wide range of words and complex headers. These linguistic choices likely contributed to readers generating excessive and detailed schemata about the inferno depicted in the literary work. The fantastical imagery and intricate language in Dante's Inferno caused readers to envision elaborate and vivid scenes of hell and its tormented souls.
9. On the other hand, Dan Brown's Inferno exhibited a more sophisticated use of linguistic headers, resulting in slightly lower TTRs compared to Dante's work. Brown's style surprised readers by breaking the flow of ideas in opening lines, leading to increased schematic deviation. The lower TTRs indicate that Brown's textual headers are strategically designed to guide readers' schemata

towards a more realistic and contemporary concept of inferno, reflecting the misdeeds of people in the modern world.

10. The study effectively demonstrates the significant impact of SKD on readers' comprehension and interpretation of literary works, highlighting how different stylistic choices influence the readers' experience.
11. It provides valuable insights into how cognitive stylistic analysis of SKD and its linguistic side-effects contribute to readers' engagement and understanding of complex literary narratives.
12. Overall, the study sheds light on the intricate relationship between language, cognitive processes, and readers' experiences, offering a deeper understanding of how writers strategically shape their texts to evoke specific reactions and mental imagery.

5.6 Hypotheses Verification

Breaking down the hypotheses one by one and discussing how the findings align with each of them, the following points are concerned with the way the hypotheses of this study a

Hypothesis 1: The two novels fulfill the concept of Inferno via linguistic clues or headers.

This study unequivocally confirms this hypothesis. Both Dante Alighieri's 'Inferno' and Dan Brown's 'Inferno' employ linguistic cues and headers to convey the concept of Inferno. Dante's work relies heavily on vivid descriptions, allegorical symbolism, and explicit references to the infernal landscape. In contrast, Dan Brown's 'Inferno' leverages a mix of historical, scientific, and contemporary references to create a complex web of linguistic cues that guide readers through his modern

interpretation of Inferno. These cues effectively fulfill the concept of Inferno in both works.

Hypothesis 2: Whether the issue is (under-) or (over-) specification, the levels of information generated in a piece of literature are typically a creative effect of the author's conscious or unconscious choices.

This study provides compelling evidence in support of this hypothesis. The diverse levels of information found in both novels are a direct result of conscious authorial choices. Dante meticulously details every circle of hell, leaving little room for ambiguity. Conversely, Dan Brown employs a more contemporary and ambiguous style, allowing readers to participate actively in interpreting the narrative. This validates the notion that authors, consciously or unconsciously, shape the levels of information in their literary works.

Hypothesis 3: The reader may expect every accessible detail to be avoided and passed over in an ordinary schema building.

The findings are consistent with this hypothesis. Readers typically expect that not every accessible detail will be explicitly presented in an ordinary schema-building process. Dante's detailed descriptions, while vivid, challenge readers' expectations of ordinary schema building, especially those unaccustomed to the elaborate style of 14th-century Italian literature. Similarly, Dan Brown's readers are faced with the challenge of reconciling the integration of historical facts with fictional elements, which also disrupts their ordinary schema-building process.

Hypothesis 4: The two infernos explicitly point to various schematic structures that trigger specific levels of complexity or recoverable default aspects of a schema.

This study affirms this hypothesis. Both 'Inferno' novels explicitly point to schematic structures that trigger specific levels of complexity within readers' schemata. Dante's structured narrative and categorization of sins elicit a specific level of complexity, while Dan Brown's interplay of historical facts and fiction introduces complexity through a different lens. In both cases, the texts prompt readers to engage with specific schematic structures, influencing their comprehension.

Hypothesis 5: Because these default aspects are presumed to be part of the readers' and narrators' common background knowledge, they are not explicitly observed but are intuitively retrieved.

The findings support this hypothesis. Default aspects presumed to be part of readers' and narrators' common background knowledge, such as the concept of hell, are not explicitly observed but are intuitively retrieved. Readers draw upon their pre-existing schemata to fill in the gaps left by the authors. This highlights the dynamic interaction between readers' background knowledge and textual content.

Hypothesis 6: The highly detailed descriptions (i.e., interpretations) of the Inferno concept across the two novels in question deviate from the readers' general schematic expectations and thus reflect equivalent side-effects on the linguistic level.

This study strongly confirms this hypothesis. The highly detailed descriptions of the Inferno concept in both novels indeed deviate from readers' general schematic expectations. Dante's intricate descriptions and

archaic language challenge contemporary readers' expectations, as do Dan Brown's historically grounded yet imaginative depictions.

These deviations result in linguistic side-effects, such as shifts in language complexity and diversity, underscoring the impact of schematic deviation on the linguistic level.

Hypothesis 7: The degree of linguistic side-effects resulting from the SKD can be measured via using Type/Token Ratios (TTRs) extracted from WordSmith Tools.

This study provides empirical support for this hypothesis. The researcher quantitatively measured the degree of linguistic side-effects resulting from Schematic Knowledge Deviation (SKD) using Type/Token Ratios (TTRs) extracted from the texts. The TTR analysis revealed shifts in language complexity, corroborating the existence of linguistic side-effects resulting from schematic challenges.

Hypothesis 8: Within the context of SKD, the acceptable amount of information or specificity in a given schema is entirely controlled by the text producer's creative and stylistic aims.

This study aligns with this hypothesis. Within the context of SKD, the acceptable amount of information or specificity in a given schema is indeed controlled by the text producer's creative and stylistic aims. Authors like Dante and Dan Brown consciously shape the level of detail in their narratives to achieve specific artistic and thematic goals. This control over information specificity is evident in their works and contributes to the unique reading experiences they offer.

In short, the study's findings align closely with each of the eight hypotheses, providing strong empirical support for the conceptual

framework underpinning the research. These findings shed light on the intricate relationship between novelists' choices, reader expectations, schematic knowledge, linguistic effects, and the overall dynamics of literary comprehension.

Chapter Six
Conclusions, Recommendations and Suggestions for Further Research

6.1 Conclusions

Rounding off this study, the SKD emerges as a result of a strong association that happens to occur between the reader's schematic knowledge and the linguistic content of a literary work. This association produces a sort of cognitive challenge to the reader's pre-existing schemata. It is a fundamental aspect of literary writing. This kind of writing has its own ability to spark conceptual conflict when readers in general attempt to understand a particular concept. The following are the main conclusions this study reaches at:

1. **Linguistic Cues and Mental Processes:**

   The linguistic cues utilized by Dante and Dan Brown in their respective novels contribute to shaping readers' mental processes and mechanisms. Dante's structured and classical style in Inferno creates a sense of order and clarity, guiding readers through the vividly depicted infernal journey. On the other hand, Dan Brown's sporadic and contemporary narrative style engages readers' curiosity and triggers suspense, leading to a different mental approach in navigating his Inferno.

2. **Schematic Specifications and Reader Interpretations:**

   Readers activate schematic specifications to reach over- or underspecified interpretations of the literary text. In Dante's Inferno, the concept of Inferno is clearly presented through

traditional religious imagery, guiding readers towards a specific mental frame. Conversely, Dan Brown's ambiguous and layered approach allows for multiple interpretations, leading to diverse schematic knowledge deviation among readers.

3. **Mental Frames and Schemata Construction:**

   Both novels construct mental frames and schemata to reveal the concept of Inferno. Dante's structured narrative immerses readers into the hierarchical and symbolic infernal setting, eliciting a coherent mental frame. In contrast, Dan Brown's narrative style creates mental frames filled with uncertainty and suspense, encouraging readers to piece together the puzzle of his Inferno.

4. **Schematic Challenges and Unexpected Detail:**

   The schematic challenge within the novels prompts unexpected levels of detail within readers' pre-existing schematic toolkit. Dan Brown's use of textual headers and sporadic cognitive style challenges readers to fill in gaps and anticipate developments, adding complexity to their mental schemata. Conversely, Dante's more structured and linear narrative offers a clear path for readers to follow without as many unexpected deviations.

5. **Visualization of Schematic Deviation:**

   Cmap tools provide valuable visualization of schematic deviation, showcasing the hierarchical representations of schemata and their interconnections. The diagrams offer a comprehensive view of readers' cognitive engagement with the textual cues, highlighting the different levels of detail activated by the authors' narrative techniques.

6. **Linguistic Side-Effects and Schematic Knowledge Deviation:**

   The measurement of linguistic side-effects, represented by Type-Token Ratios (TTRs), indicates the impact of schematic knowledge

deviation on the reader's linguistic experience. The varying TTR values between the novels demonstrate the richness of linguistic headers and textual cues used by Dante and Dan Brown, affecting readers' cognitive responses and interpretations.

7. **Implications of Schematic Deviation:**

   Schematic deviations have significant implications for readers, influencing their cognitive understanding and emotional engagement with the literary texts. The narrative techniques employed by the authors challenge readers' preconceived notions, encouraging them to explore the themes and concepts at deeper levels and fostering a more immersive reading experience.

8. **Creation and Destruction of Schemata:**

   Both Dante Alighieri's and Dan Brown's novels offer opportunities for readers to create new schemata or modify existing ones. Dante's structured narrative guides readers through a specific mental frame, while Dan Brown's sporadic style encourages readers to actively participate in constructing mental frames, resulting in a dynamic interaction between the text and the reader's pre-existing schematic knowledge.

To sum up, the cognitive stylistic analysis, schematic knowledge deviation, and reader engagement in Dante's Inferno and Dan Brown's Inferno reveal the distinct ways in which each novelist presents the concept of Inferno. The novelists' narrative styles, use of textual headers, and schematic challenges significantly influence readers' mental processes, offering unique perspectives on the literary language and the concept of Inferno within each novel.

6.2 Recommendations

Researchers, readers, and students in the domains of linguistics, cognitive stylistics, and literature should take into account the following recommendations to enhance their comprehension and knowledge:

1. Linguistic Recommendations

a. **Explore a diverse range of linguistic cues:**

Researchers should investigate a wide array of linguistic features used by authors to shape readers' mental processes and mechanisms. Analyzing literary works from various genres and time periods can reveal how different linguistic choices impact readers' cognitive responses and interpretations.

b. Investigate specific cognitive effects:

Delving into the specific cognitive effects triggered by linguistic elements in literary texts, such as metaphors, similes, and figurative language, can provide valuable insights into readers' comprehension and emotional engagement.

c. Analyze cross-cultural linguistic patterns:

Researchers can conduct cross-cultural analyses to compare how linguistic cues affect readers from different cultural backgrounds, shedding light on the intricate interaction between language and cultural context in schematic knowledge deviation.

2**. Literary Recommendations:**

a. Diversify the selection of literary works:

Expanding the analysis to include a broader range of literary texts allows researchers to explore how authors from various literary movements and genres present

complex concepts like "Inferno." This comparison can uncover unique narrative techniques and their impact on readers' understanding.

b. Investigate authors' intentions:

Exploring the authors' intentions behind their use of specific linguistic cues and narrative styles through interviews, letters, and other primary sources can provide deeper insights into their creative and stylistic approaches.

c. Examine reception of literary texts:

Analyzing how different audiences, including readers and critics, perceive and interpret the selected literary works can offer valuable perspectives on the effectiveness of the authors' stylistic choices.

3. Pedagogical Recommendations:

a. Integrate cognitive stylistics in literary education:

Incorporating cognitive stylistics concepts into literary education can enhance students' critical thinking skills and engagement as they learn how linguistic cues influence their interpretation of texts.

b. Encourage comparative literary analysis:

Teachers can encourage students to compare and contrast works by different authors, focusing on how linguistic choices impact readers' experiences. This practice can broaden students' perspectives and foster a deeper appreciation for the complexities of literary language.

c. Provide guidance on schematic knowledge deviation:

Teachers can help students recognize schematic knowledge deviation and its implications when interpreting complex literary concepts. Discussions on the role of readers' prior

knowledge and its interaction with linguistic cues can enrich students' understanding of the text.

In summary, these recommendations are essential for linguists and cognitive stylisticians seeking to advance their knowledge in cognitive stylistic aspects, broaden the scope of literary analysis, and enhance literary education for students and teachers.

6.3 Suggestions for Further Research

The following research directions explore various aspects of cognitive stylistics, literary analysis, and reader engagement, offering exciting opportunities for researchers to delve deeper into the complexities of literary language and the cognitive processes of readers:

1. Exploring Cognitive Stylistics in Multilingual Literary Works: A Comparative Analysis of Inferno in Different Languages.
2. Investigating the Impact of Reader Background on Schematic Knowledge Deviation in Literary Texts: A Case Study of Dante's Inferno and Its Translations.
3. Unraveling the Linguistic Side-Effects of Schematic Knowledge Deviation: A Corpus-based Analysis of Literary Texts.
4. The Role of Cognitive Stylistics in Reader Engagement and Empathy: A Study on Inferno in Contemporary Novels.
5. A Cross-Genre Study of Schematic Knowledge Deviation: Analyzing Inferno in Fantasy and Historical Fiction Novels.
6. Examining the Influence of Reader Personality Traits on Schematic Knowledge Deviation: Implications for Literary Reception Studies.
7. Cognitive Stylistics and the Concept of Hell in World Literature: A Comparative Analysis of Inferno in Eastern and Western Traditions.

8. Investigating the Intersection of Cognitive Stylistics and Visual Art: A Study on the Representation of Inferno in Graphic Novels.
9. The Role of Cognitive Load in Schematic Knowledge Deviation: An Eye-Tracking Study on Inferno's Complex Literary Language.
10. Cognitive Stylistics and Reader Response Theory: Understanding the Reception of Inferno in Different Sociocultural Contexts.

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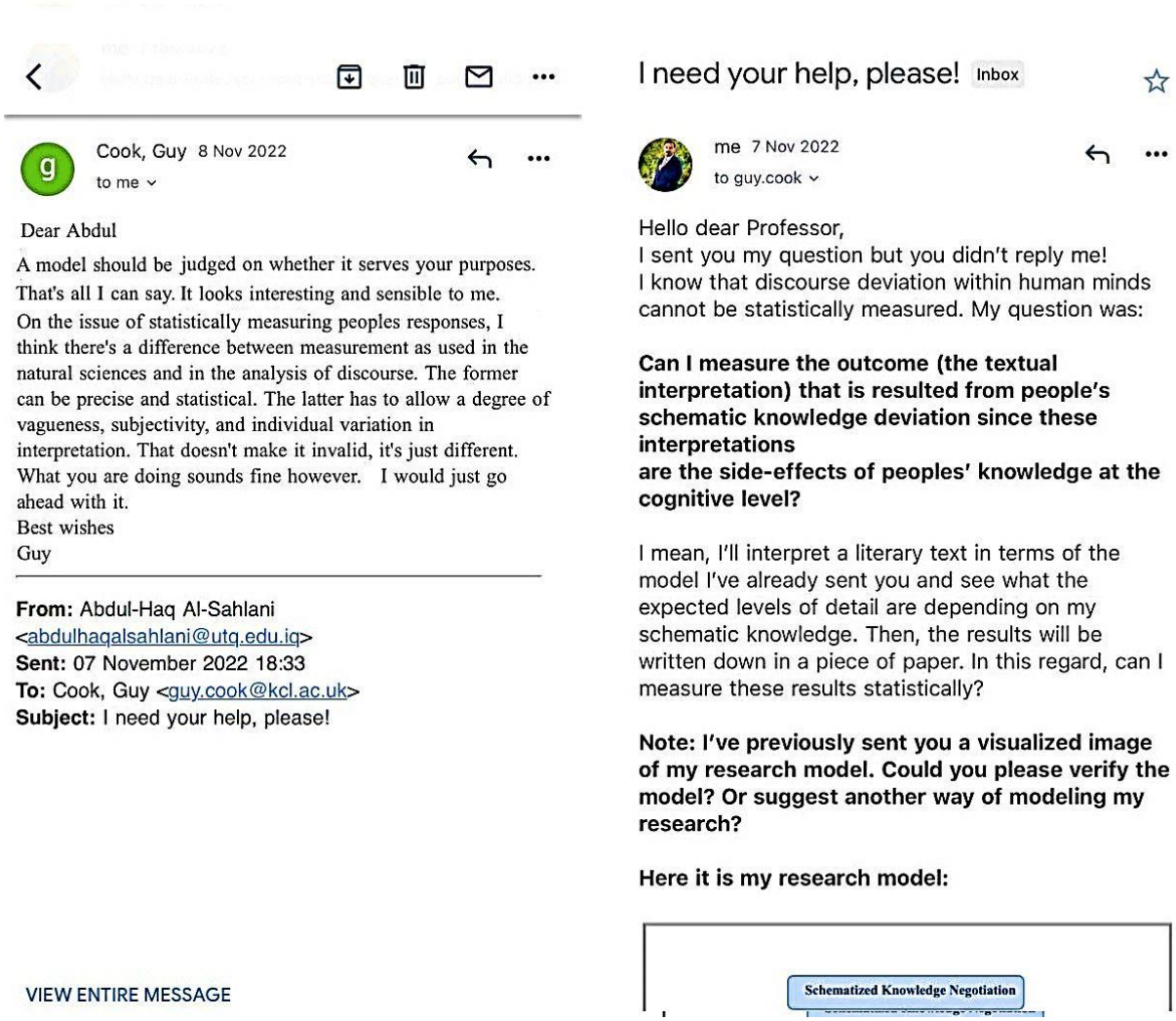
Online Resources:

www.verywellmind.com

www.gutenberg.org

Appendices

Appendix A: Guy Cook's (2022) Verification of The Model of This Study



Cook, Guy 8 Nov 2022
to me

Dear Abdul

A model should be judged on whether it serves your purposes. That's all I can say. It looks interesting and sensible to me.
On the issue of statistically measuring peoples responses, I think there's a difference between measurement as used in the natural sciences and in the analysis of discourse. The former can be precise and statistical. The latter has to allow a degree of vagueness, subjectivity, and individual variation in interpretation. That doesn't make it invalid, it's just different.
What you are doing sounds fine however. I would just go ahead with it.
Best wishes
Guy

From: Abdul-Haq Al-Sahlani <abdulhaqalsahlani@utq.edu.iq>
Sent: 07 November 2022 18:33
To: Cook, Guy <guy.cook@kcl.ac.uk>
Subject: I need your help, please!

VIEW ENTIRE MESSAGE

I need your help, please! Inbox

me 7 Nov 2022
to guy.cook

Hello dear Professor,
I sent you my question but you didn't reply me!
I know that discourse deviation within human minds cannot be statistically measured. My question was:

Can I measure the outcome (the textual interpretation) that is resulted from people's schematic knowledge deviation since these interpretations
are the side-effects of peoples' knowledge at the cognitive level?

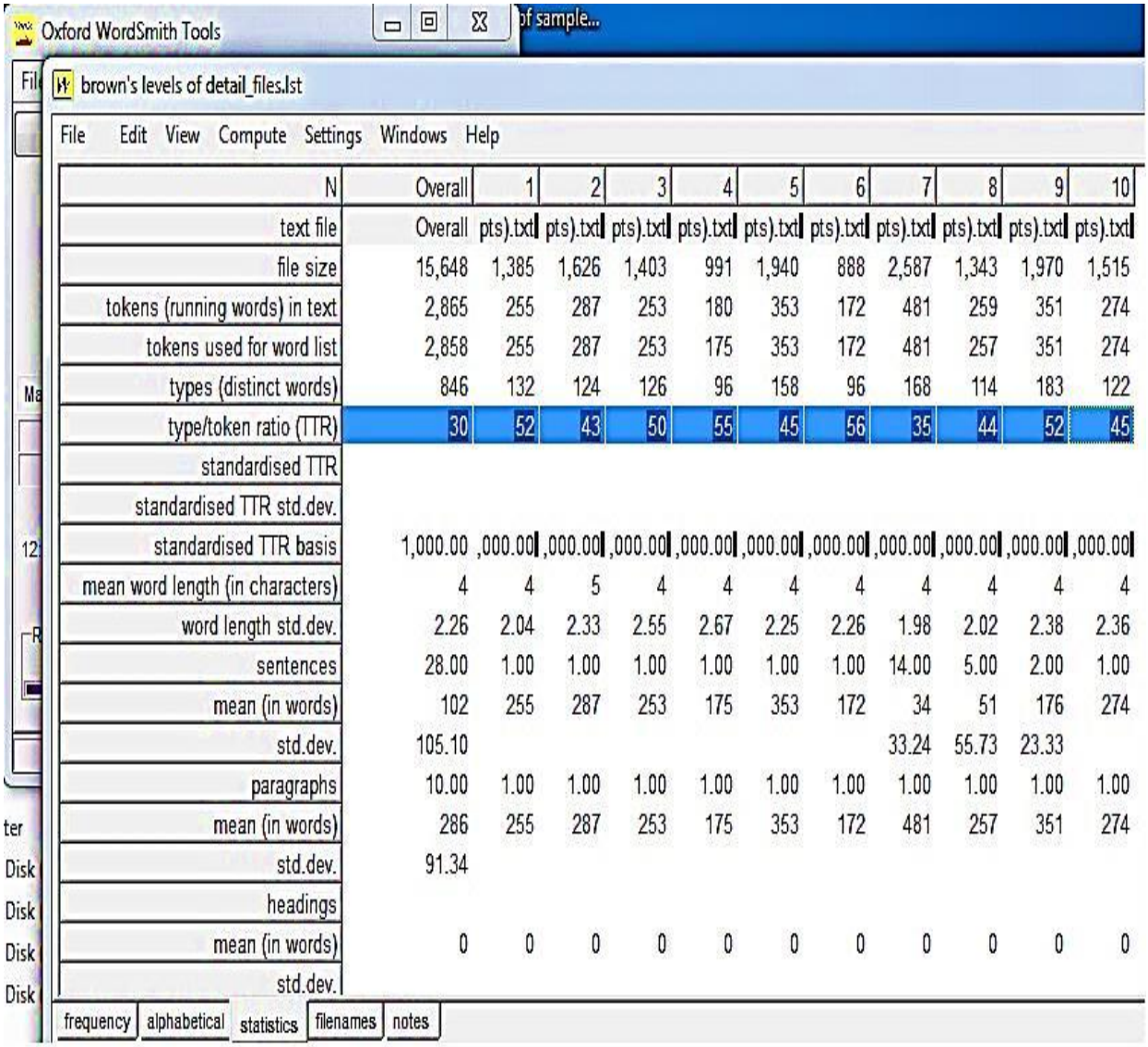
I mean, I'll interpret a literary text in terms of the model I've already sent you and see what the expected levels of detail are depending on my schematic knowledge. Then, the results will be written down in a piece of paper. In this regard, can I measure these results statistically?

Note: I've previously sent you a visualized image of my research model. Could you please verify the model? Or suggest another way of modeling my research?

Here it is my research model:

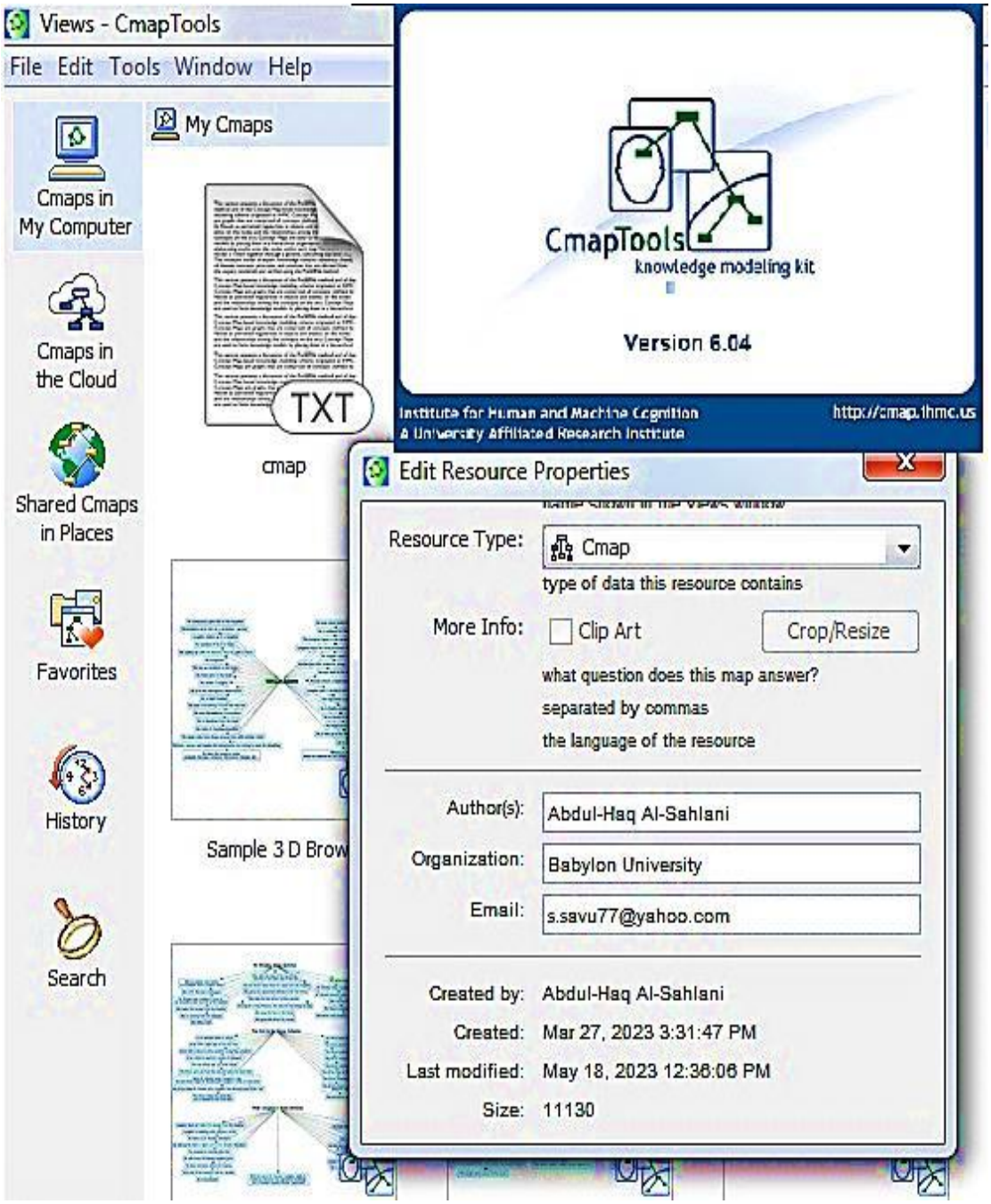
Schematized Knowledge Negotiation

Appendix B: WordSmith Tools (TTRs)



N	Overall	1	2	3	4	5	6	7	8	9	10
text file	Overall	pts).txt	pts).txt	pts).txt	pts).txt	pts).txt	pts).txt	pts).txt	pts).txt	pts).txt	pts).txt
file size	15,648	1,385	1,626	1,403	991	1,940	888	2,587	1,343	1,970	1,515
tokens (running words) in text	2,865	255	287	253	180	353	172	481	259	351	274
tokens used for word list	2,858	255	287	253	175	353	172	481	257	351	274
types (distinct words)	846	132	124	126	96	158	96	168	114	183	122
type/token ratio (TTR)	30	52	43	50	55	45	56	35	44	52	45
standardised TTR											
standardised TTR std.dev.											
standardised TTR basis	1,000.00	,000.00	,000.00	,000.00	,000.00	,000.00	,000.00	,000.00	,000.00	,000.00	,000.00
mean word length (in characters)	4	4	5	4	4	4	4	4	4	4	4
word length std.dev.	2.26	2.04	2.33	2.55	2.67	2.25	2.26	1.98	2.02	2.38	2.36
sentences	28.00	1.00	1.00	1.00	1.00	1.00	1.00	14.00	5.00	2.00	1.00
mean (in words)	102	255	287	253	175	353	172	34	51	176	274
std.dev.	105.10							33.24	55.73	23.33	
paragraphs	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
mean (in words)	286	255	287	253	175	353	172	481	257	351	274
std.dev.	91.34										
headings											
mean (in words)	0	0	0	0	0	0	0	0	0	0	0
std.dev.											

Appendix C: Cmap Tools



C

تكشف النتائج الرئيسية رؤوس دلالية لغوية متميزة ودرجة عالية من التنوع النصي في "جحيم" أليغيري، مما يشير إلى درجة أكبر من الانحراف الناتج عن انحراف الأطُر الذهنية للقارئ. تُظهر "جحيم" براون انحرافًا لغويًا ولكن مع رؤوس دلالية لغوية متكررة. تختتم الدراسة بأن انحراف الإطار الذهني يشكل تحديًا معرفيًا ويؤثر على معرفة القراء الذهنية، مما يبرز أهمية اعتبار التداخل بين الأطُر الذهنية للقراء واللغة الأدبية في فهم وتفسير النصوص الأدبية.

المستخلص

أن الدراسة الحالية تتعمق في مسألة مثيرة: التحديات المعرفية التي يواجهها القراء عندما يغمرون أنفسهم في النصوص الأدبية، وخصوصًا فيما يتعلق بمعرفتهم السابقة. الدافع وراء هذا الاستقصاء يكمن في ندرة الدراسات السابقة لاستكشاف مفهوم "انحراف الإطار الذهني" في سياق مفهوم "الجحيم" ضمن ميدان الأدب. وبناءً على ذلك، تسعى هذه الدراسة لرسم مسارات جديدة ضمن تخصص الأساليب المعرفية في الساحة الأكاديمية، وخصوصًا في سياق تحليل الأدب.

ومع ذلك، تهدف الدراسة إلى توضيح كيف يمكن تنشيط توقعات الأطُر الذهنية لدى القراء على مستويات مختلفة للتعامل مع الانحراف لهذه الأطُر، وتشدد على عملية التجديد المعرفي التي تحدث عندما تنحرف مستويات مختلفة من التفاصيل عن توقعات القراء. وتشير الدراسة إلى أن التحدي المعرفي قد يتطلب من القراء استخراج معلومات غير متوقعة من اطُرِهم السابقة بدلاً من تشكيل أطُرٌ ذهنية جديدة.

بجانب ذلك، تحلل الدراسة روايتين: أحداهن لـ "دانتي أليغييري" والأخرى لـ دان براون"، تحملان اسم "الجحيم" باستخدام أدوات "الخريطة المفاهيمية". توضح الدراسة المستويات المعتادة والمفرطة في التفاصيل التي يولدها القراء. وتستخدم منهجية أخذ العينات المتسلسلة، حيث تمثل (20) عينة موزعة بالتساوي ومستخرجة بدقة من الأسطر الافتتاحية للجحيمين. من خلال تحفيز أكثر العناصر القياسية المعروفة والمألوفة، ثم يتم مراقبة انحراف الاطُر الذهنية في كل من الروايتين. تُمثل أدوات الخريطة المفاهيمية التمثيل الهرمي للانحراف الذهني على المستوى الإدراكي، بينما تقيس "أدوات وورد سميث" الانحراف اللغوي، الناتج عن هذه الخريطة المفاهيمية من خلال نسب "نوع الكلمة/علامة الكلمة" في العينات النصية المختارة.

تتراوح قيم نوع الكلمة/علامة الكلمة للأسطر الافتتاحية لأليغيري وبراون من (0.65) إلى (0.74) للقيم الأدنى ومن (0.88) إلى (0.91) للقيم الأعلى. على الرغم من التشابه العام في قيم نوع الكلمة/علامة الكلمة، فإن أسطر الافتتاح لأليغيري تظهر أعلى قيمة بنسبة (0.32)، مما يشير إلى درجة أكبر من الانحراف اللغوي ناتج عن انحراف الأطُر الذهنية. من ناحية أخرى، تظهر عينات براون قيمة أقل بنسبة (0.30)، ولكنها تحتوي على عدد كبير من الدلالات اللغوية أو علامات الكلمات المتكررة، مما يشير إلى انحراف لغوي مميز لا يمكن اعتباره مرجعًا مثل عينات أليغيري.

بسم الله الرحمن الرحيم

قَالَ هَذَا صِرَاطٌ عَلَيَّ مُسْتَقِيمٌ (41) إِنَّ عِبَادِي لَيْسَ لَكَ عَلَيْهِمْ سُلْطَانٌ إِلاَّ مَنِ اتَّبَعَكَ مِنَ الْغَاوِينَ (42) وَإِنَّ جَهَنَّمَ لَمَوْعِدُهُمْ أَجْمَعِينَ (43) لَهَا سَبْعَةُ أَبْوَابٍ لِّكُلِّ بَابٍ مِّنْهُمْ جُزْءٌ مَّقْسُومٌ (44) إِنَّ الْمُتَّقِينَ فِي جَنَّاتٍ وَعُيُونٍ (45) ادْخُلُوهَا بِسَلامٍ آمِنِينَ (46)

صدق الله العليّ العظيم

سورة الحجر (الآيات:41- 46)

جمهـــــــورية العـــــــراق
وزارة التعليم العالي والبحث العلمي
جامعـــــــــة بـــابـــــــل
كليـة التربيـــة للعلـــوم الإنسانيـــة
قســـم اللغـــــة الإنجليـــزيـــة

تحليل أسلوبي معرفي لانحراف الإطار الذهني لمفهوم الجحيم في روايات انجليزية مختارة

أطروحة تَقَدمَ بها
إلى مجلس كلية التربية للعلوم الإنسانية
جامعة بابل وهي جزءٌ من متطلبات نيل درجة دكتوراه فلسفة
في اللغة الإنجليزية وعلم اللغة

الباحث
عبد الحق عبد الكريم عبد الله السهلاني
بإشراف
أ. د. احمد صاحب جابر مبارك

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