ترتيب المشاهد في أعمال دان براون: دراسة دلالية إدراكية

اطروحة قدمت

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من قبل

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بأشراف

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

۞ أَفَلَمْ يَسِيرُوا فِي الْأَرْضِ فَتَكُونَ لَهُمْ قُلُوبٌ يَعْقِلُونَ بِهَا أَوْ آذَانٌ يَسْمَعُونَ بِهَا فَإِنَّهَا لَا تَعْمَى الْأَبْصَارُ وَلَكِن تَعْمَى الْقُلُوبُ الَّتِي فِي الصُّدُورِ ۞

الحج (46)

Do they not travel through the land, so that their hearts (and minds) may thus learn wisdom and their ears may thus learn to hear? Truly it is not their eyes that are blind, but their hearts which are in their breasts.

Alhj (46)
(Translated by Yusuf, 1938)

Dedicated to

My family

My best friends

All who care about me

The Supervisor's Declaration

I certify that this dissertation which is entitled **"Viewing Arrangement in Dan Brown's Works: A Cognitive Semantic Study"** has been prepared by **Mustafa Abdulsahib Abdulkareem** under my supervision at the College of Education for Human sciences/ University of Babylon in partial fulfilment of the requirements for the degree of Doctor of Philosophy in English Language and Linguistics.

Signature:

Supervisor: **Prof. Ahmed Sahib Jabir Mubarak (PhD)**

Date: /   /2021

In view of the available recommendations, I forward this dissertation for debate by the Examining Committee.

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Date: /   /2021

The Examining Committee's Declaration

We certify that we have read this dissertation which is entitled **"Viewing Arrangement in Dan Brown's Works: A Cognitive Semantic Study"** and as Examining Committee examined the student in its content, and that, in our opinion, it is adequate as a dissertation for the degree of Doctor of Philosophy in English Language and Linguistics.

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Abstract

One of the challenges that cognitive linguists face is how the parts of a scene are arranged and how sequential actions are joined together to form a wider scene. Indeed, the scene arrangement depends mainly on human visual perception. Specifically, the order of actions in a scene is affected by the way we see that scene, and this is reflected in the language we use. That is, a change in the order of actions leads to a change in meaning.

The current study, thus, aims to analyze the way in which dynamic scenes are arranged sequentially. This area of research needs to be investigated because of its significance to the cognitive semantic study and because of the little attention researchers have paid to it. Therefore, the study aims at: (1) classifying a scene into different levels; (2) identifying its semantic boundaries; (3) tracing the basic schematic processes and components of the sequential scenes; (4) identifying the roles these schematic processes and components play in the viewing arrangement of dynamic scenes; (5) figuring out the construal operations through which the scenes are arranged; and (6) investigating the role they play in the viewing arrangement of the dynamic scenes.

To do that, the model developed by the study, known as "Sequential Scanning of Viewing Arrangement" is used to treat this issue. This model deals with dynamic, on-line, or real-time perceptual processes. It suggests two cognitive mechanisms of conceptualization to analyze the structure of sequential scenes: scene-building and construalization. These two mechanisms of human mind are used to configurate movable scenes that work together and cannot be separated. The schematic scene-building is metaphorically considered as the skeleton that is covered by the flesh (i.e., the conceptual system).

To test the validity of the model, the study selects a group of scenes from Dan Brown's *The Da Vinci Code* to be analyzed in terms of the model developed in this study. The study concludes that the movable scene can include a set of sequential schematic structures, such as the mover, motion, schematic transitions, causality, geometrical structures, and containment. All these elements work together sequentially in the sense that they are inherently consolidated. It also concludes that the construal operations, such as saliency, perspective and comparison, play a positive role in the viewing arrangement of a dynamic scene through highlighting some entities or actions over others.

This study falls into five chapters along with sections and sub-suctions which elaborate issues under focus. Chapter One is considered as an introductory part that gives the description of the problem, questions, objectives, hypotheses, procedures, limits and significance of the study. Chapter Two focuses on the theoretical background of cognitive linguistics and survey its main findings. Chapter Three presents a detailed explanation of the concept of scene and its structure by developing a configurational model of dynamic scene structure. Chapter Four concerns with the description of the data and analyzes the selected scenes in terms of the model developed in this study. Chapter Five concludes the findings of the current study and offers recommendations and suggestions for future studies on the research problem.

المستخلص

إن أحد التحديات التي يواجهها اللغويون الادراكيين هو كيفية ترتيب أجزاء المشهد وكيف يتم تجميع الإجراءات المتسلسلة معًا لتشكيل مشهد أوسع. في الواقع، يعتمد ترتيب المشهد بشكل أساسي على الإدراك البصري البشري. على وجه التحديد، يتأثر ترتيب الاحداث في المشهد بالطريقة التي نرى بها ذلك المشهد، وينعكس هذا في اللغة التي نستخدمها. أي أن التغيير في ترتيب الاحداث يؤدي إلى تغيير في المعنى.

وبالتالي، تهدف الدراسة الحالية إلى تحليل الطريقة التي يتم بها ترتيب المشاهد الحركية بالتتابع مع الإشارة إلى المجالات التخطيطية والمفاهيمية. يحتاج هذا المجال من البحث إلى التحقيق بسبب أهميته للدراسة الدلالية الادراكية وبسبب قلة الاهتمام الذي أولاه الباحثون له. لذلك تبحث الدراسة عن تصنيف المشهد إلى مستويات مختلفة وتحديد حدوده. تحاول الدراسة أيضًا الى تتبع العمليات التخطيطية الأساسية ومكونات المشاهد المتسلسلة، وتحديد الأدوار التي تلعبها في ترتيب عرض المشاهد الديناميكية. كما تهدف الدراسة إلى معرفة العمليات التأويلية التي يتم من خلالها ترتيب المشاهد، والتحقق من الدور الذي تلعبه ظاهرة ترتيب الرؤية في المشاهد الديناميكية.

للقيام بذلك، طورت الدراسة نموذج سمي ب "المسح المتسلسل لترتيب المشاهد" لكي يعالج مثل هذه المشكلة. وبالتالي، يرتبط هذا النموذج مع العمليات الإدراكية الحركية المباشرة أو في الوقت الفعلي. يقترح النموذج عمليتين لتحليل تركيبة المشاهد المتحركة وهي عملية بناء المشهد والتأويل. تعمل هاتان الآليتان للعقل البشري المستخدمان لتكوين المشاهد المتحركة معًا ولا يمكن فصلهما. يُنظر إلى بناء المشهد التخطيطي مجازيًا على أنه الهيكل العظمي الذي يغطيه النظام المفاهيمي او التفسيري.

لاختبار صلاحية النموذج، اختارت الدراسة مجموعة من المشاهد من رواية شيفرة دافنشي للكاتب دان براون ليتم تحليلها وفقا للنموذج المطور في هذه الدراسة. توصلت الدراسة إلى استنتاج مفاده أن المشهد المتحرك يمكن أن يتضمن مجموعة من الهياكل التخطيطية المتحركة، مثل الجسم المتحرك، والحركة، والانتقالات التخطيطية، والسببية، والتركيبات الهندسية للحركة، والاحتواء. تعمل كل هذه العناصر معًا بالتسلسل بمعنى أنها مدمجة بطبيعتها. كما أشارت الدراسة ايضا إلى أن العمليات التفسيرية مثل البروز والمنظور والمقارنة تلعب دورًا في ترتيب عرض المشهد المتحرك من خلال إبراز بعض الكيانات أو الإجراءات على غيرها.

تتضمن الدراسة خمسة فصول جنبًا إلى جنب مع الأقسام والتخصصات الفرعية التي توضح القضايا المتعلقة في الدراسة. يعتبر الفصل الأول جزءًا تمهيديًا يقدم وصفًا للمشكلة والأهداف والأسئلة والفرضيات والمنهجيات وحدود الدراسة وأهميتها. يركز الفصل الثاني على الخلفية النظرية لعلم اللغة الادراكي ويستعرض نتائجه الرئيسية. يقدم الفصل الثالث شرحًا تفصيليًا لمفهوم المشهد وبنيته من خلال تطوير نموذج تكويني لهيكل المشهد الديناميكي. يتعلق الفصل الرابع بوصف البيانات وتحليل المشاهد المختارة وفقا للنموذج الذي تم تطويره في هذه الدراسة. وأخيراً، يهتم الفصل الخامس بالنتائج التي توصلت اليها الدراسة الحالية ويقدم اقتراحات للدراسات المستقبلية والتوصيات حول مشكلة البحث.

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VIEWING ARRANGEMENT IN DAN BROWN'S WORKS: A COGNITIVE SEMATIC STUDY

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 EDUCATION, ENGLISH LANGUAGE, LINGUISTICS

BY

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CHAPTER ONE

Introduction

As an introductory part of the study, this chapter outlines the problem around which the study revolves, the objectives of the study and the hypotheses. It also displays the procedures used to implement the objectives, sets the limits of the study and explains its significance.

1.1. The Problem

The conceptualization of the dynamic scenes in our minds is a difficult challenge in cognitive linguistics. That is, they are like a video, consisting of a group of moving images that are linked by certain relations. An experienced novelist is like a painter, who has the ability to reflect reality by using words. The difficulty lies in the way they depict a scene in details as if the reader saw it.

Accordingly, one of the challenges that cognitive linguists face is how the parts of a scene are arranged and how sequential actions are joined together to form a wider scene. Indeed, scene arrangement depends mainly on human visual perception. Specifically, the order of actions in a scene is affected by the way we see that scene, and this is reflected in the language we use. That is, a change in the order of actions leads to a change in meaning.

From the study perspective, viewing arrangement relates to schematic and conceptual domains. The former is highly abstracted, primitive system which is the building block of any dynamic scene. It deals with the sequential and stationary schematic components with which we can build or structure any sequential scene. Conceptual domain is relatively rich in

detail. It is the ability to construe the same situation in different ways. The conceptual domain is structured by schematic domain. That is, both schematic and conceptual systems of language work together and cannot be separated, configrating the mental image of a scene.

The current study tends to analyze the way in which dynamic scenes in the selected novel are arranged sequentially with reference to these two domains. This area of research needs to be investigated because of its significance to the cognitive semantic study and because of the little attention researchers have paid to it. This problem can be translated into the following concrete questions:

1. What are the levels of scene structuring process?

2. How can the boundaries of a scene be defined?

3. What are the schematic processes and components that are regarded as the building blocks of any sequential scenes?

4. What role does these schematic processes and components play in the viewing arrangement of dynamic scenes in Dan Brown's works?

5. How can micro scenes be sequentially joined to form the whole scene?

6. How can the entities and actions of a scene be internally segmented?

7. What are the construal operations involved in the selected scenes?

8. What role does construalization take in the viewing arrangement of the selected dynamic scenes?

1.2. Objectives of the Study

In the light of the above-mentioned questions, the study attempts to fulfil the following objectives:

1. Classifying the different levels of scene structuring process.

2. Identifying the boundaries of a scene.

3. Tracing the basic schematic processes and components of the sequential scenes.

4. Identifying the roles these schematic processes and components play in the viewing arrangement of dynamic scenes.

5. Determining a way for sequentially combining minor scenes to form a wider scene.

6. Exhibiting the cognitive processes by which the entities and actions of a scene are internally divided.

7. Figuring out the construal operations through which the scenes are arranged.

8. Investigating the role construalization plays in the viewing arrangement of the dynamic scenes.

1.3. Hypotheses

In relation to its objectives, this study hypothesizes that:

1. A scene is classified into two hierarchical levels, called macro, and micro scenes.

2. The boundaries of a scene are identified according to time and place.

3. A dynamic scene contains the sequential and stationary schematic processes and components that are considered as primitive.

4. The sequential and stationary schematic processes and components of dynamic scenes work together and cannot be separated, configrating the picture of a dynamic scene.

5. Micro scenes are sequentially combined through the process of causative transitionality to form the macro scene.

6. The entities and actions of a scene are divided in terms of their quantity.

7. Focus of attention is one of the construal operations that play a vital role in the viewing arrangement of the entities of a scene.

8. Because a scene has the same schematic processes and components, its entities are construalized in a similar way.

1.4. Procedures

To fulfill the objectives of the study and verify or reject its hypotheses, the following procedures are adopted:

1. Surveying the literature about the realm of cognitive linguistics, giving details about the relevant theories of cognitive semantics and cognitive grammar.

2. Developing a model and using it to analyze the dynamic scenes extracted from Dan Brown's *The Da Vinci Code*.

3. Analyzing the scenes using two levels: schematization and conceptualization.

4. Discussing the results of the analyses to provide conclusions and the pedagogical recommendations.

1.5. Limits of the Study

The study abides by the following limits:

1. The present study uses the scene structure as a distinct and useful level of representation for linguistic analysis.

2. The study concerns with the analysis of dynamic (sequential) scenes, rather than summary scenes.

3. The study addresses one set of data; the novels. This type of genre includes a wide range of detailed dynamic scenes that are arranged in a sequential manner.

4. Of the seven novels written by Dan Brown, the novel of *The Da Vinci Code* (2003) is selected for analysis due to its immense worldwide popularity, mostly due to its rich scenes.

5. Of the 125 dynamic scenes involved in this novel, the study selects three scenes to be analyzed, taking into consideration their length and position in the novel.

6. The study focuses on two levels of analysis, that is, schematic and conceptual.

1.6. Significance of the Study

It is hoped that the current study will be theoretically and practically valuable to the field of linguistics, particularly cognitive linguistics. The findings of the study are considered as a contribution to the developing body of research investigating the way in which dynamic scenes are arranged. In addition, it provides a reference document for beginner writers of novels and stories to help them arrange scenes in a sequential manner. The study can also be useful in the language learning process by

drawing the scene for the learners in a sequential manner that helps them understand the text easily. Furthermore, the study helps translators create an accurate and similar mental image (scene) in the process of translating from language A to language B. Finally, psychologists can benefit from the study to treat those who have difficulty or disorders in the process of describing scenes.

Chapter Two

Cognitive Linguistics: Theoretical Background

2.1. Introduction

This chapter is to sketch the theoretical background of CL and survey its main findings. The chapter begins by giving an overview of CL. Then, it briefly explains the primary commitments and assumptions of CL that make it distinct from other movements in linguistics and one of the most exciting schools of thought in modern cognitive science. After that, the chapter outlines the main differences between CL and other linguistic approaches, namely formal linguistics (such as generative linguistics and formal semantics) and functional linguistics. Finally, since CL is not a single theory of language, but rather a group of harmonious theories, the chapter also provides a detailed discussion of these theories that have emerged within two branches of CL: cognitive semantics and cognitive approaches to grammar.

2.2. Cognitive Linguistics: History and Definition

Cognitive linguistics is a relatively recent school of linguistics, and one of the most innovative and exciting approaches to the analysis of language and thought that has arisen within the modern realm of interdisciplinary study known as cognitive science (Evans and Green, 2006: 5). CL is an interdisciplinary approach[1] or an enterprise to the study of natural language, mind, and sociocultural experience that concentrates on

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1 CL is not a single articulated theoretical framework, but rather a cluster of flexible compatible theories that share a number of fundamental theoretical principles. However, for the sake of easy reference, the study will refer to it as an approach.

language as an instrument for organizing, processing, and conveying information (Geeraerts and Cuyckens, 2007: 3). That is, it deals with investigating the relationship between human language, the mind and socio-physical experience. While its origins are philosophical in nature, CL has been strongly influenced by theories and findings from the other cognitive sciences, especially combining knowledge from both cognitive psychology and linguistics, and more recently by the brain sciences, the interdisciplinary field known as cognitive neuroscience[1] (Evans et al, 2007: 2).

Historically speaking, CL has first grown out in the late seventies as part of the Chomskian paradigm. It has been increasingly active since eighties in the work of a number of researchers, especially Gilles Fauconnier, Charles Fillmore, George Lakoff, Ronald Langacker, and Leonard Talmy who became dissatisfied with the narrow scope of generative paradigm that neglects the cognitive and social dimensions of linguistic communication. Such cognitive practitioners are interested in the relation of language and mind by claiming that our interaction with the world is mediated through informational structures in the mind. In the context of CL, semantics is not regarded as a truth-condition; nor as a discrete entity. Rather, it is deemed to be gestaltic in nature and is related to cognitive abilities such as conceptualization, construal, categorization, and knowledge structures (Croft, 2009: 397).

Cognitive linguistics also emerged as a reaction against the dominant Chomsky's generative linguistics, which emphasizes the primacy of

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1 The word *cognitive* in CL does not only mean that language is psychologically based-phenomenon, but also that the processing and storage of information is a substantial design feature of language.

syntax, disregarding the role of semantics and pragmatics in linguistic theory (Evans, 2007: 22). Former generative semanticists such as George Lakoff and Ronald Langacker, in a so-called Lakoff-Langacker agreement, have rejected the idea of segregating syntax from the rest of language. Scholars following the field of CL have felt that the linguistic theory needed a radical change. This is because, at that time, most linguistic theories depended on formal structures without giving attention to semantically based approach to grammar that took general cognitive abilities into account. Consequently, cognitive linguists see that meaning plays an important role in the linguistic theory. Although most of the cognitive linguists have concentrated on semantics, a considerable attention is also dedicated to syntax and morphology. In addition, there has been cognitive linguistic research into other fields of linguistics; notable exemplars involve language acquisition, phonology and historical linguistics (Croft and Cruse, 2004: 1).

What makes CL a distinct and worthwhile enterprise in the contemporary study of language is its interest in the relationship between language, mind and sociophysical experience. CL, broadly speaking, aims to analyze the relationship between language and world experience. It can be defined as a powerful linguistic framework to study language, conceptual systems, human cognition as well as general meaning construction. Within language, CL goes beyond the visible structure of language to investigate the fundamental conceptual categories like space and time, scenes and events, entities and processes, motion and location, force and causation (Fauconnier, 2003: 1).

Although each group of cognitive linguists began developing their own approach to language description and linguistic theory, they are all united

by a certain shared assumption that meaning is central to language. Therefore, according to all cognitive linguistic approaches, meaning must be a primary focus of study. From this overall feature, three principal characteristics of CL can be derived: the priority of semantics in linguistic analysis, the encyclopedic nature of linguistic meaning, and the perspectival nature of linguistic meaning. The first feature expresses that the basic function of language is meaning; the remaining characteristics concern with the nature of the semantic phenomena (Geeraerts and Cuyckens, 2007: 5).

One of the hallmarks of the CL is that it is an inherently heterogeneous enterprise. Despite the heterogeneity of the approach, CL is defined, in principle, by two main overarching commitments which make it distinct from other movements in linguistics (such as formalist and functionalist). These are the generalisation commitment and the cognitive commitment. Accordingly, the next section highlights these two principles that lie at the core of CL and are widely shared by all cognitive linguists.

2.3. Commitments of Cognitive Linguistics

In a significant paper, Lakoff (1990: 40), one of the pioneering figures in CL, argues that the CL framework is guided by two fundamental commitments: (1) the cognitive commitment which refers to the view that cognitive linguists try to make generalizations that are compatible with empirical findings in the other disciplines, especially the other cognitive sciences, and (2) the generalisation commitment which concerns with discovering general principles that apply to all aspects of human language. The following sub-sections briefly survey these major commitments.

2.3.1. The Cognitive Commitment

The cognitive commitment refers to the idea that language and linguistic organization should accord with what is generally known about the mind and brain from disciplines other than linguistics, particularly the other cognitive sciences such as philosophy, psychology, anthropology, artificial intelligence and neuroscience (Evans and Green, 2006: 40-41). Thus, it is this commitment that makes cognitive linguistics interdisciplinary approach in nature (Evans et al, 2007: 4)

As stated by Evans (2012: 130-131), cognitive commitment has been fragmented into three ramifications. Firstly, linguistic theories cannot involve structures or processes that violate what is known about the properties of the human cognition. Secondly, the models that use established cognitive properties to express the phenomena of language are more parsimonious than those that are constructed from a priori simplicity metrics. Finally, the cognitive linguist must create convergent evidence for the cognitive reality of components of any suggested model, whether or not this research is conducted by the cognitive linguist.

2.3.2. The Generalisation Commitment

In linguistics, the study of language is often divided into distinct levels like phonology (sound), semantics (word and sentence meaning), pragmatics (meaning in discourse context), morphology (word structure), syntax (sentence structure) and the like. For instance, a syntax 'module' is an area in the mind related to structure words into sentences, while a phonology 'module' is interested in structuring sounds into patterns permitted by the rules of any given language. In other words, modern linguistics supports the idea that the study of language is separated into

distinct sub-disciplines. This is especially true of the modular approach[1] to language adopted in formal linguistics (Evans and Green, 2006: 28).

However, CL is not satisfied that language is divided into separate modules. For cognitive linguists, this segregation may only be useful for practical purposes. Thus, the generalization commitment forms a commitment to the characterisation of general principles that are responsible for all aspects of linguistic knowledge, rather than assuming that they are produced in encapsulated modules of the mind (Evans, 2011: 72-3).

The generalization commitment includes two consequences for studying human language. First, studies in CL concentrate on what is common among aspects of language, attempting to re-use successful methods and explanations across these aspects. Second, unlike modular approaches which take a horizontal approach to study language, approaches to CL often take a 'vertical' which is more complex in some ways than a horizontal one because it is varied and textured. Horizontal approaches take one layer and study it internally (like a horizontal slice of cake), whereas vertical approaches get a richer view of language by taking a vertical slice of language, which involves phonology, morphology, syntax, and of course semantics on top (Evans et. al., 2007: 4).

2.4. The Assumptions of Cognitive Linguistics

In addition to the two beforehand mentioned commitments of CL, the approach also provides a number of guiding assumptions. Indeed, it is not

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1 Modularity (See 2.5.1.1.) is a theoretical approach that claims that the human mind is organised into distinct encapsulated modules of knowledge, one of them is language, and linguistic structure is markedly distinct from other aspects of cognition (Evans and Green, 2006: 41)

an easy task to summarise in just a few words what are the basic theoretical hypotheses underlying a linguistic paradigm, particularly in a heterogeneous field such as CL. However, most of cognitive linguists agree that there are at least six characteristic theses that are considered as the major pillars of the whole theory. These are:

1. The thesis of embodied cognition,

2. The thesis of encyclopedic semantics,

3. The thesis that meaning is conceptualization,

4. Semantic structure is conceptual structure

5. The symbolic thesis, and

6. The usage-based thesis.

The first four are regarded as the guiding assumptions of cognitive semantics (henceforth CS), while the others are related to a cognitive approach to grammar. These are briefly elaborated below.

2.4.1. Embodied Cognition

One of the guiding principles that lies at the heart of CL is embodied cognition. It holds that the human mind is not only connected to the body but that the body influences the mind (Evans, 2007: 66). This thesis consists of two related parts. Firstly, our species-specific view interacts with our environment we inhabit, rather than objectively given. Alternatively stated, human construal of reality is mediated by the nature of our physical bodies. In essence, the nature of concepts human has access to and the nature of the reality we think and talk about are constrained by the nature of our embodied experience. Secondly, human mental representation of reality is based on human embodied mental states (Evans, 2011: 73-74).

Cognitive linguists who support the thesis of embodiment are Lakoff and Johnson in their work on metaphor, Johnson in his contribution of image schema, Langacker in his development of Cognitive Grammar and Talmy in his investigations on how language encodes conceptual structure (Evans, 2007: 66). In his (1987) book, *The Body in the Mind*, Johnson suggests that embodied experience manifests itself at the cognitive level in terms of image schemas, including concepts such as CONTACT, CONTAINER and BALANCE. Lakoff (1987, 1990, and 1993) and Johnson (1987) have assumed that such embodied concepts can be systematically extended to provide abstract concepts and conceptual domains with structure. This process is known as "conceptual projection", as in the case of conceptual metaphor (Evans and Green, 2006: 46).

2.4.2. Encyclopedic Semantics

Another principle adopted in CL is the thesis of encyclopedic semantics. It means that semantic structure is encyclopedic in nature in the sense that words do not represent bundles of meaning; rather they serve as an access to broad repositories of knowledge, relating to a special concept or conceptual domain (Ibid: 160). The study of CL depends on encyclopedic view of semantics which includes five major assumptions. These hypotheses will be briefly explored below:

A. *There is no clear-cut distinction between semantics and pragmatics*

There is no difference between the core meaning of an expression on the one hand and its pragmatic, social or cultural meaning on the other. This is because cognitive linguists do not believe that semantic knowledge is an autonomous mental lexicon from other kinds of (linguistic or

nonlinguistic) knowledge[1]. Therefore, according to this view, knowledge of what lexical words mean and knowledge about how words are employed are both kinds of semantic knowledge. This does not mean that the existence of pragmatic knowledge is rejected. Instead, cognitive linguists allege that both semantic and pragmatic knowledge cannot be clearly separated (Evans, 2013: 24).

B. Encyclopedic semantics is structured

It means that words make access to represent an organised inventory of knowledge as a network (Evans, 2007: 66). By way of illustration, the word 'banana' contains information relating to its shape, colour, smell, texture and taste; whether we like or hate bananas; how and where they are grown and harvested; information concerning funny cartoons consisting of banana skins; and so on. However, it must be taken into account that certain aspects of this knowledge are more central than others to the meaning of the word 'banana' (Evans and Green, 2006: 161). Kecskes (2012: 179) presents distinct concepts that can be used to indicate the structure of knowledge system. First, frame is a schematisation of experience, relating elements and entities associated with a specific culturally embedded situation from our experience. Second, script is a number of activities that are ordered sequentially, and are associated with a specific situation. Third, scenarios are groups of organized units in cognitive processes. Finally, schema is a broad range of knowledge structures that helps understand a situation.

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1 This view is in direct opposition to the traditional view, which assumes that literal meaning is related to semantic investigation while pragmatic meaning depends on non-linguistic knowledge (Evans and Green, 2006: 216).

C. There is a distinction between encyclopedic meaning and contextual
    meaning

Encyclopedic meaning is contextually determined. That is, the selection of encyclopedic meaning is marked by contextual factors. By way of illustration, the word *safe* has various meanings depending on the context in which it occurs. It can mean 'unlikely to cause harm' when utilized in the context of a child playing with a spade. On the other hand, 'safe' can mean 'unlikely to come to harm' when applied in the context of a beach that has been saved from development as a tourist resort. In order to understand what the speaker means; we depend on our encyclopedic knowledge relating to children and beaches and our knowledge concerning to what it means to be safe. Then, we construct a meaning by selecting a particular meaning that is appropriate in the context of the utterance. Accordingly, each individual instance of word leads to a distinct interpretation[1] (Evans, 2012: 132).

D. Lexical items are points of access to encyclopedic knowledge

Encyclopedic approach considers lexical items as points of access to a vast network of structured knowledge. Hence, lexical words provide access to certain parts of what is so-called *semantic potential of encyclopedic knowledge* (Evans, 2011: 75).

1To state that words are 'points of access', encyclopedic meaning does not mean that words do not have conventional meanings associated with them. However, cognitive linguists assume that the conventional meaning associated with a certain word is just a 'prompt' for the process of meaning construction, viz., the 'selection' of an appropriate interpretation against the context of the utterance (Evans and Green, 2006: 161).

E. Encyclopedic knowledge is dynamic

While the central meaning of a lexical word is relatively stable, the encyclopedic knowledge that each word provides access to is dynamic. Consider the lexical word 'car', for instance, our knowledge of cars continues to be modified as a result of our ongoing interaction with cars, our acquisition of knowledge concerning cars, and so on (Evans, 2007: 73).

2.4.3. Conceptualization of Meaning

The third principle associated with CL is that meaning construction is defined as conceptualization. This thesis arises as a reaction against truth-conditional semantics. From cognitive linguistic perspective, meaning is not stated as a truth-conditional relationship between an utterance and its possible world; nor as discrete binary features. Instead, meaning is constructed at the conceptual structure in the sense that meaning is equated with conceptualization. That is, linguistic units (such as words) are only 'prompts' for the construction of meaning (Evans and Green, 2006: 162). Conceptualization is nonlinguistic in nature. In other words, the assumption that meaning is conceptualization assumes that "the way in which symbolic units are combined during language understanding gives rise to a unit of meaning which is nonlinguistic in nature and relies, in part, on nonlinguistic processes of integration" (Evans, 2012: 134).

Evans (2011: 79) presents two remarkable approaches to meaning construction that have developed within CL: backstage cognition (Fauconnier, 1994 and 1997) and LCCM theory (Evans, 2006 and 2009). The first is interested in the kinds of mechanisms central to meaning construction that are essentially non-linguistic in nature. Backstage cognition consists of two distinct, but closely related, theories: mental

spaces theory, coined by Fauconnier (1994 and 1997), and conceptual blending theory, developed by Fauconnier and Mark Turner (2002). The former is related to the creation of the small packets of conceptual structure, called 'mental spaces', constructing as we think and talk. The latter is concerned with the integration of structure that operates in a network of mental spaces in order to create new meanings. The second approach to meaning construction is LCCM theory. Two central constructs are involved in this theory: 'lexical concept' and the 'cognitive model'. The central principle of LCCM theory is that meaning is not a property of words, but meaning is constructed depending on how language users construe the world. LCCM theory is, thus, interested in the role of linguistic cues and linguistic processes in constructing meaning (this is so-called lexical concepts), and the way in which such lexical concepts facilitate access to nonlinguistic knowledge (this is known as cognitive models) in the process of language understanding.

2.4.4. Semantic Structure and Conceptual Structure

Jackendoff (1983a: 95) makes a distinction between two levels of mental representation: semantic structure and conceptual structure. The former concerns with semantic properties of sentences such as synonymy, anomaly, presupposition, and inference. The latter, in contrast, is used to cover both linguistic and nonlinguistic mental phenomena (such as concepts, thoughts, images, etc.). This conceptual structure is reflected in the semantic structure of linguistic expressions. Langacker (1987: 98) considers semantic structure as language-specific and conceptual structure as universal. He defines semantic structure as the semantic pole of a linguistic expression that can be equated with mental concepts. However, the claim that the conceptual and semantic structures are fallen

into one level does not mean that the two are identical. Instead, CL assumes that the meanings associated with linguistic structures construct only a subset of possible concepts. That is, there are many thoughts, ideas and feelings that cannot conventionally be encoded in language (Evans, 2007: 8).

2.4.5. The Symbolic Thesis

The third central thesis of CL, particularly of a cognitive approach to grammar, is the symbolic thesis. The idea that language has an essentially symbolic function has taken from Saussure's theory of language. The Swiss linguist Saussure emphasizes that language is a symbolic system in which the linguistic expression (sign) includes a mapping between two psychological entities: a concept (signified) and a phonetic signal (signifier). However, there are influential differences between the Saussurean model and the cognitive model. The symbolic thesis maintains that the basic unit of grammar is a symbolic unit (Langacker has named it as a 'symbolic assembly' in his Cognitive Grammar approach or a 'construction' in construction grammar approaches). Langacker classified the symbolic unit into two poles: a semantic pole (its meaning) and a phonological pole (its sound) (Evans and Green, 2006: 476).

The symbolic thesis emphasizes the idea that meaning is fundamental to all linguistic units, including not only lexical elements, but also grammatical structures such as 'the passive construction' or 'the intransitive construction'. The view that both grammatical constructions and lexical items are meaningful in nature leads to the fact that the lexicon and grammar should not be regarded as distinct entities, as in Chomsky's generative grammar, but rather they are interwoven (Smith

and Höfler, 2015:132). This is what Langacker refers to as symbolic assemblies. The symbolic thesis expresses that the mental grammar includes a form, a semantic unit, and a symbolic correspondence that maps the two, as represented in Figure 1. Put it differently, the symbolic view assumes that human mental grammar involves units, which have pairings of form and meaning. Examples of symbolic units involve morphemes (like dis- as in dislike), whole words (like car, run, yesterday), idiomatic expressions (as He kicked the bucket), and sentence-level constructions such as the ditransitive (or double object) structure, as in the expression: John baked Sally a cake (Evans, 2012: 132-133).
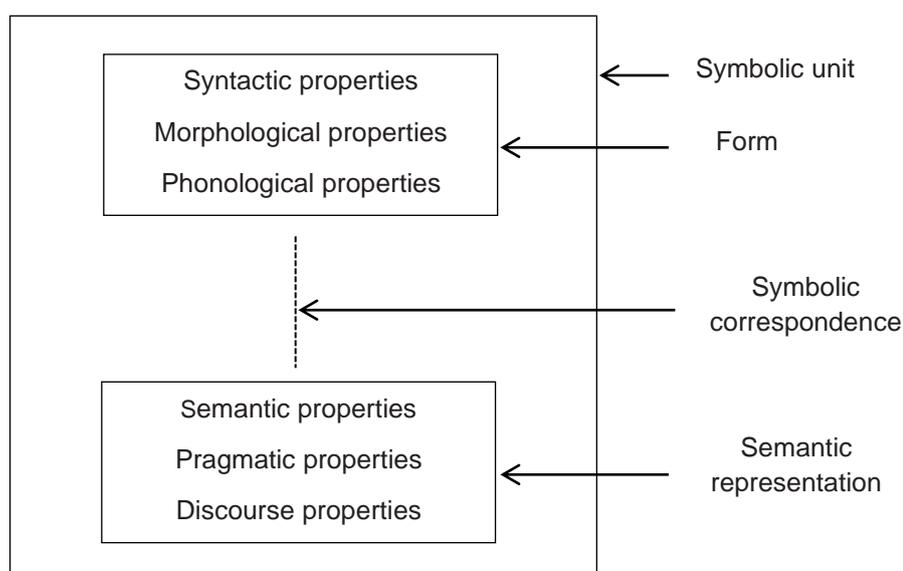
Figure 1: A symbolic unit (following Evans, 2011: 77)

The symbolic thesis consists of a number of influential consequences for a model of grammar. First, form cannot be studied independently of meaning. The second consequence is that as long as there is no clear-cut distinction between the study of form and meaning, cognitive linguists propose the notion of a *lexicon-grammar continuum* to capture the idea that the investigation of grammar is the study of the full range of units

that make up a language, from the lexical to the grammatical. A further consequence is that symbolic units are related to one another, both in terms of similarity of form and meaning. Such relationships can manifest terms of relative schematicity or specificity. Cognitive linguists make a model to put the relationships between symbolic units in terms of a network, arranged hierarchically concerning levels of schematicity. Finally, constituency structure is a function of symbolic units which becomes integrated in order to constitute larger grammatical units, with different linguists suggesting slightly various mechanisms for how this arises, as in Langacker's (1987) conceptually dependent (or relational) predications, and Goldberg's (1995) participant roles and sentence-level argument roles (Evans, 2011: 77-78).

2.4.6. Usage-based Thesis

The final fundamental assumption, related to CL in general and cognitive approach to grammar in particular, is that meaning is based on usage and experience. The term 'usage-based' goes back to Langacker's (1987) assumption that a speaker's linguistic system is grounded in actual usage events or utterances. From a cognitive perspective, this thesis emphasizes that the mental grammar of the speaker is contextually represented in language use. It is clearly stated that what is influential for adopting the usage-based thesis is that there is no direct distinction between knowledge of language and use of language, because knowledge emerges from use. As a result, knowledge of language is knowledge of how language is used (Evans, 2007: 216-217).

The usage-based thesis further consists of a number of consequences. First, symbolic unit exhibits degrees of 'entrenchment' in the sense that they are entrenched; and the most entrenched symbolic units tend to form

the language system in terms of patterns of use. Hence, the mental grammar, which is emerged from language use, also influences language use. A second consequence is that the language system shows redundancy. That is, redundancy is expected in the mental grammar (Evans, 2012: 135).

While the aforementioned characteristic commitments and theses of CL make it distinct from other movements in linguistics (such as formalist and functionalist), it is important to present the key differences between CL other approaches, as shown in the following section.

2.5. Cognitive Linguistics and Other Linguistic Approaches

Over the past decades, the world of linguistics has witnessed controversy between formal linguistics in which linguistic structures are autonomous of their functions and meanings; and the functional linguistics, in which linguistics structures are motivated by functional and cognitive processes. At the end of 20th century, radical trend in linguistics, what is so-called *cognitive linguistics*, has emerged as a reaction to the traditional approaches of the study of language. It is really important to say that although its concern with cognition, CL shares many assumptions with the functionalist tradition, especially concentrating on the semiological function of language and the crucial role of conceptualization in social interaction. At the same time, CL conflicts with formalist approaches of language by regarding language as an integrated part of human cognition, rather than a separate module (Langacker, 1998: 1). Even so, however, CL shares features from both formal and functional linguistics, viz., CL mediates the two approaches, as schematically represented in Figure 2.

As such, the next sections will provide the basic shared and different characteristics between CL and the other approaches to language.
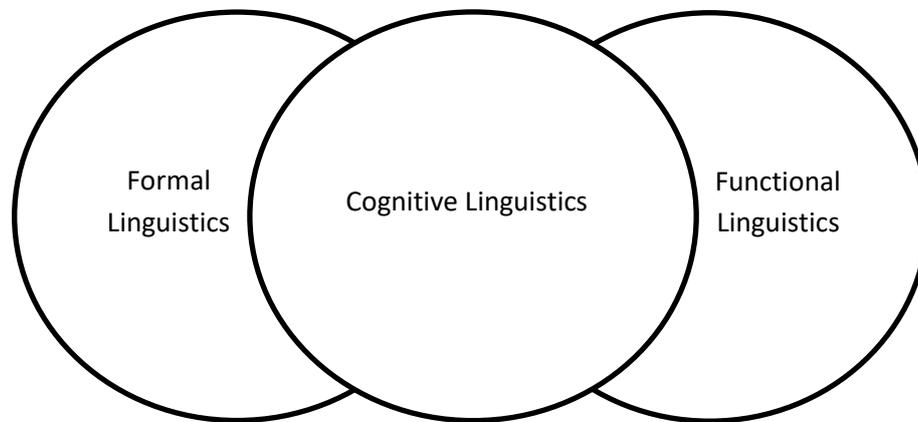

Figure 2: The relationship of cognitive linguistics with other approaches to language

2.5.1. Cognitive Linguistics vs. Formal Linguistics

Formal linguistics is represented most notably by the work of Noam Chomsky (1965, 1981, and 1995) in his theory of Generative Grammar (henceforth GG), and Formal Semantics (henceforth FS), inspired by philosopher of language Richard Montague. These formal linguistics approaches, built on the 'objectivist' philosophical tradition, understand knowledge of linguistic structures as autonomous of other mental processes such as attention, memory, and reasoning. That is, they argue that different areas of linguistic analysis such as phonology, semantics and syntax form independent modules. In other words, the language faculty itself is viewed as an autonomous component of mind, autonomous of other mental faculties (Evans et al, 2007: 3).

In contrast, the chief focus of CL is not – as in many structural or generative approaches – on form only, nor – as in traditional semantics – on meaning only, but on both form and meaning. Unlike formal linguistics approaches which emphasize the modularity thesis and the

autonomy of syntax thesis, CL claims that language is not an encapsulated system but rather a system embedded within generalized cognitive processes that cannot be separated. Consequently, the following section will shed light on the main differences between CL and GG, on one hand; and CL and FS, on the other.

2.5.1.1. Cognitive Linguistics vs. Generative Grammar

Undoubtedly, Chomsky's contribution to the field of linguistics is one of the most important achievements of the 20th century. Chomsky has first presented his theory in his revolutionary book Syntactic Structures (1957). Later, the theory has gone through various developments: Standard theory/Aspects of the Theory of Syntax (1957-1965), Extended standard theory (1965-1973), Revised extended standard theory (1973-1976), Government and binding/Principles and parameters theory (1981-1990), and Minimalist program (1990-present). All these theories are often given under the blanket name *Generative Grammar*. A keystone of GG is that grammar is a system of rules that generates words to construct grammatical sentences in a particular language. It is concerned with the speaker's knowledge of a language (competence), rather than in their actual use of it (performance). GG is "a system of rules that in some explicit and well-defined way assigns structural descriptions to sentences" (Chomsky, 1965: 8).

However, CL rejects many assumptions of GG. In order to demonstrate that, the current section is assigned to indicate a list of several major differences between the two approaches to the study of language:

   A. Holism vs. Modularism

Within GG, meaning and grammar are absolutely distinct in the sense that grammar does not depend on meaning. According to Chomsky (1957:

15), any search for a meaning-based definition of 'grammaticalness' will be futile. Chomsky manifests the independency of syntax with his famous instance "Colorless green ideas sleep furiously" which, he claims, is meaningless; but grammatical. As such, the symbols that operate within the syntax have no meaning.

However, the tenet that lies at the very heart of CL is that syntax is non-autonomous, viz. non-modular cognitive faculty. Instead, the syntax models part of a continuum together with lexicon and morphology; what is so-called 'Lexicon-grammar continuum'. All levels of language (semantics, morphology, and syntax) are seen as inherently symbolic, having both form and meaning. Unlike generative model which claims that the grammatical component mediates between form and meaning, CL assumes that grammatical structures are merely another type of meaningful symbolic unit. Furthermore, in CL, the symbolic units that make up the grammatical system are meaningful and serve a structuring function (Evans and Green, 2006: 753). Although most approaches to CL acknowledge the integration of semantics and grammar, some trends focus specifically on grammatical units. Figure 3 schematically illustrates the non-modular cognitive faculty.
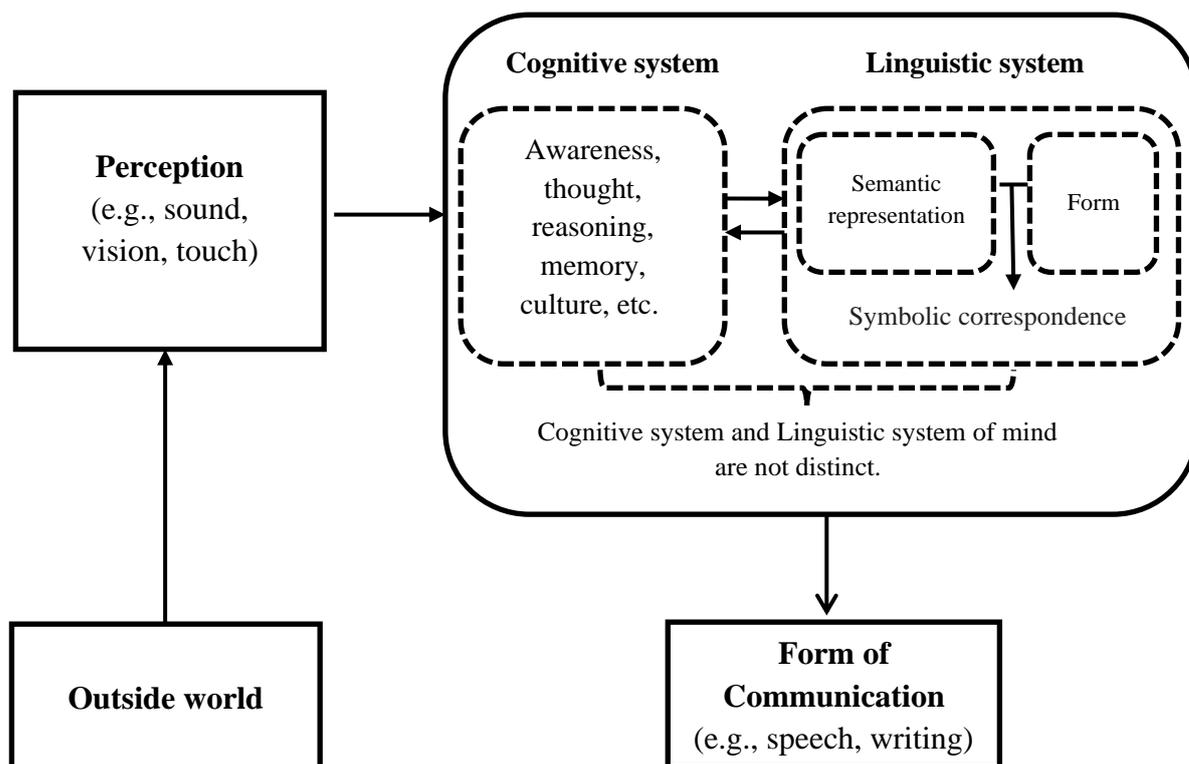
Figure 3: The non-modular cognitive faculty

B. Inventory vs. derivational system

In CL, a language is viewed as a structured inventory of symbolic resources shared by users of the language. This inventory is structured in the sense that units relate to one another in different ways, rather than being separate and discrete. GG, on the other hand, assumes a computational system that generates or derives well-formed grammatical structures without any reference to meaning (Langacker, 2007: 424).

C. The status of constructions

The concept of 'construction' is treated rather differently in CL and GG. In CL, construction has been defined as any symbolic unit that is 'stored whole' in the speaker's knowledge of language. It may be as small as a word or as large as a clause whose meaning cannot be predicted from its subparts. However, in GG, construction is a grammatical unit that combines parts of a sentence into larger groupings, like clause. It has

been constructed by the application of transformational rules (Evans and Green, 2006: 754).

D. Schemas vs. rules

Another point of contrast between CL and GG is the distinction between schemas and rules. The term 'rule' is adopted by traditional GG which regards grammar as a system of rules classified according to the components of the grammar (like 'phonological rules', 'syntactic rules', 'lexical rules') that recursively generate all the well-formed sentences in a given language. The properties of language can be explained by a system of 'words and rules', where the words are the individual lexical items in the speaker's lexicon, and these words are subject to rules of different types within the language system. Sounds are governed by phonological rules and words are governed by syntactic rules to construct grammatical structures such as phrases and sentences, whereas semantic rules designate a semantic interpretation to the clause based on the principle of compositionality[1] (Ibid: 642).

However, CL is a usage-based, rather than a rule-based, theory. That is, it uses 'schema' as a unit of analysis which is applied in various contexts (such as image schema, event schema, construction schema). Language users make use of their knowledge of these schemas when they create a novel expression (Sinha, 2007: 1270). Evans and Green (2006: 754) state that although both aim to capture the same aspect of speaker knowledge,

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1 The principle of compositionality is attributed to the German philosopher, logician and mathematician Gottlob Frege (1845–1925), and sometime known as Frege's Principle. This principle holds that the meaning of a complex expression is determined by the lexical meanings of its words, their grammatical meanings and the syntactic structure of the whole (Löbner, 2002: 16).

schema and rule are inherently distinct. The difference takes place in the directionality of the relationship between the schema or rule on the one hand, and the particular expressions that correspond to it on the other. In GG, the rule precedes and thus determines the expressions that instantiate it. In CL, by contrast, the schema does not produce the instance but follows it.

E. The Status of Universality

Chomsky claims that a certain set of structural rules are innate to all humans. Universal Grammar (UG) is described as "the system of principles, conditions, and rules that are elements or properties of all human language" (Chomsky, 1976: 29). This entails that all human beings share part of their knowledge of language; regardless of the language they speak. Cook (1988: 1-2) assumes that the concept of UG is the theory of knowledge which deals with the internal structure of the human mind. It emphasizes on the idea that our mind has a set of principles that are common to all languages, and parameters that vary from one language to another. Accordingly, properties of GG are innate to the human brain, rather than being learned from the environment. Cognitive linguists, by contrast, reject the idea that language is innate. Instead, it is a reflection of embodied cognition which is common to all human beings (Evans and Green, 2006: 63).

F. Externalist vs. Internal

Chomsky makes a distinction between what he has called Externalized (E-) language (relating to collect samples of language) and Internalized (I-) language (concerning with what a speaker knows about a language and where this language knowledge comes from). This distinction is described in terms of competence (i.e., tacit knowledge) and

performance (language use). Chomsky (1986: 20-4) claims that language can only be meaningfully investigated from an internal perspective, rather than external one of language use. That is, language is seen as an internal property of the human mind rather than something external. However, CL rejects the segregation between competence and performance. It assumes that knowledge of language is emanated from external language use, and further, knowledge of language is knowledge of how language is used. In essence, "language structure emerges from language use" (Tomasello, 2003: 5). This is referred to as *the usage-based thesis* (see section 2.4.6.). Consequently, the language structure cannot be studied without taking into account the nature of language use.

G. Redundancy vs. Economy

The generative linguistics adopted the economy principle which assumes that minimized grammar is the best grammar. That is, grammar is a set of rules motivated by economy, generativity and reductionism (Langacker, 1988: 128). Basically, a speaker's grammar, for GG, is a reductive system that consists of only the smallest set of rules required to generate all the configurations of a particular language. Hence, redundancy should be avoided: language is maximally economical system in order to acquire it very quickly (Amanda, 2014: 89). This is particularly the case of the most recent version of GG, the minimalist program, which developed in the early 1990s (For a summary see Chomsky 1993 and 1995).

In contrast, CL is non-reductive and maximalist approach in the sense that linguistic system is massive and largely redundant, rather than a self-contained set of rules. The schemas that emerge from patterns of usage and instances of these schemas (linguistic units such as words and constructions) are regarded as phenomena of the same type (Langacker,

1999b: 91).

H. Conventionality vs. Regularity

Another difference between GG and CL is in terms of conventionality and regularity. GG does not concern with conventional expressions, such as figurative language. For instance, idiomatic expressions, like *kick the bucket*, have complex syntactic structures; and therefore, they are irregular lexical items. Such expressions are believed to be peripheral and uninteresting because GG concentrates on 'core' phenomena (such as word order, major clause types, case and agreement patterns and so on). This is because generalisation is a principal objective of this approach, which aims to achieve UG as its fundamental research goal. However, CL considers conventional and idiomatic expressions as an essential part of what it means to know and to use a language. In fact, these irregular expressions are not regarded as a typical or problematic, but "all expressions, 'regular' or 'irregular', form part of a speaker's inventory of linguistic knowledge and must be accounted for" (Evans and Green, 2006: 755-6).

I. Constraints on the Model

CL and GG also differ significantly in terms of the constraints placed on the model. Since it focuses on economics and generalization, GG places severe constraints on grammatical constructions and processes. This is especially evident in its emphasis on the relatedness of constructions. For example, GG claims that all clause kinds are formed according to the same general principles and share a similar infrastructure. Moreover, it is expected that non-canonical clause types such as interrogative, passive and cleft clauses are derived from more basic underlying clause structures. In order to maintain these assumptions, the transformational

approach acknowledges invisible and semantically empty elements. For example, both sentences, George wanted Lily to see the world and George wanted to see the world, share a parallel structure; although the second example also includes an invisible embedded subject that has no phonetic realization (it is Lily).

In contrast, CL denies invisible or semantically empty elements. Instead, they are viewed as variant, related and unrelated, constructions. For example, in cognitive grammar, the *content requirement* which excludes abstract rules also prohibits invisible or semantically empty elements (Ibid: 757-8).

2.5.1.2. Cognitive Linguistics vs. Formal Semantics

CL, or more specifically CS, is a challenge to traditional FS which seeks to study meaning in terms of *truth conditions*. FS is rooted in logic, philosophy of language and linguistics. It first appeared as part of a theory known as "Montague grammar" which was originally developed by the logician Richard Montague and later modified and expanded by other linguists, philosophers, and logicians who state that different ideas from the philosophy of language can be systematically applied to natural language (Portner and Partee, 2002: 1). The approach that follows Montague's theory is known as *truth-conditional semantics* or FS. CL notably differs from FS with several characteristics:

A. *Embodied vs. Objectivist Realism*

According to FS, linguistic meaning is defined in terms of the correspondence to the world: meaning is located outside the self and the mind is a mere storage of human experience. Meaning can therefore be defined in terms of the conditions that make a sentence true (Evans and Green, 2006: 446). According to Lakoff (1987: 183), FS is based on

objectivist realism, for which "true knowledge of the external world can only be achieved if the system of symbols we use in thinking can accurately represent the external world". Objectivism (objectivist realism), which is rooted in the Aristotelian belief in classical definitions of categories and also relates to Logical Positivism, assumes that the world comprises entities belonging to objectively defined categories, in which categories share logical relations that are not entirely related to the human mind. Thus, existence is distinct from any aspect of human cognition, such as perception, understanding, knowledge, or belief (Baicchi, 2015: 34).

CL moves us away from objectivism toward the experiential realism of embodied: it adopts a phenomenological approach[1] (embodied realism) as its philosophical basis. Experiential (or embodied) realism, as developed by Lakoff (1987) and Lakoff and Johnson (1980 and 1999), claims that meaning is neither purely objective and universal, nor totally subjective and particular. According to Dirven and Francisco (2010: 36), experiential realism affirms that all human beings have access to the world through their embodied experience and perception of that world (experientialism), and they can all have the same experiences and perceptions, because they all have common bodily constitution in direct relationship with that world (realism). From this standpoint, the essential purpose of language is not objectivity of the world, but instead to communicate and share our individual and collective experiences (Rohrer, 2007: 26). For more details see section 2.4.1.

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1 Phenomenology: is described as an approach in which "[a]ll individuals have an intentional relationship to the world and their access to the world or their consciousness is realized by their bodily experiences of that world" (Geeraerts, 1985:355).

B. Proposition vs. Construal

One of the fundamental distinctions between FS and CL is related to the difference in viewing grammatical structure. Unlike FS which considers grammar as meaningless; grammatical structure, in CL, is meaningfully defined. FS adopts proposition as a unit of meaning of a sentence. Proposition can be described as the content of a sentence as a result of the meaning of a simple statement, which can either be true or false. It is nonlinguistic expression, and it is not related to any particular linguistic expression. The proposition of a simple statement includes one or more argument(s) and a predicate. For instance, the predicate gives in *Pete gave Liz a present* requires three arguments (Pete, Liz, a present). Predicates may be defined in terms of one-place, two-place or three-place depending on the number of arguments they take. Furthermore, there is no one-to-one correspondence between sentence and proposition because the same proposition may be elaborated by different linguistic expressions, and a particular sentence may be represented by various propositions on different situations. For instance, the sentences *Pete is here, my brother is here, Liz's boyfriend is here* can refer to the same proposition (Cruse, 2006: 143).

In contrast, the theoretical core of CL is the notion of *construal* which refers to the different ways in which human mind has the ability to conceptualize or construe things or events from different perspectives (Langacker, 2008: 43). According to the cognitive linguists, linguistic meaning consists of conceptual contents as well as the ways in which language users view these conceptual contents. Unlike FS which views both (a) and (b) as having a single proposition, CL treats them differently:

(a) Jane pinched Bill.

(b) Bill was pinched by Jane.

In (a), the focus is on the agent, Jane, whereas in (b), our focus is on the patient, Bill. This is because each of (a) and (b) is construed in a different perspective (Evans and Green, 2006: 467).

C. Dictionaries vs. Encyclopedias

The description of linguistic meaning is viewed from two distinct approaches: a one-level approach (encyclopedic view) versus a two-level approach (The dictionary view). According to the dictionary view which is adopted by FS, linguistic meaning is made up of two types of knowledge: dictionary (linguistic) knowledge and encyclopedic (non-linguistic) knowledge. The former concerns with knowing what words mean which is stored in the mental lexicon and relates to the discipline of semantics. The latter is external to linguistic knowledge (world knowledge) and it relates to the discipline of pragmatics.

However, encyclopedic view (See section 2.4.2.) of meaning assumes that semantic structure serves as points of access to a large inventory of structured knowledge (the conceptual system), since meaning emerges from language use. This knowledge is based on human interaction with others (social experience) and the external world around us (individual experience) (Krüger, 2015: 127-8).

D. Universal Cognitive Processes vs. Semantic Universals

A further predominant formal approach to semantic universals, called *semantic decomposition* or *componential analysis*, has assumed that there is a universal set of primitive semantic concepts. This theory has developed by various formal and non-formal theorists, including Wierzbicka (1972, 1980, and 1996), Jackendoff (1983b), and Pinker

(1994). According to semantic decomposition, all languages share a core vocabulary; although the forms of the common terms differ across languages, their meanings are the same. Thus, it is interested in the general semantic properties of language, rather than the specific semantic properties of particular languages. At first, Wierzbicka's (1972) study suggested 14 semantic primes. Then, the number has expanded to involve 63 words (Murphy, 2010:70). However, semantic primitive approach has been faced a number of challenges. Particularly, it is difficult to determine empirically what semantic primitives might be 'right', or their number.

Although CL has often been interested in investigating the general cognitive processes (common to all humans) that govern language, it rules out the view that all languages are the same, whether grammatical structure or semantic structure by a set of semantic primitives. Instead, language is held to reflect embodied cognition which is shared by all human beings. In other words, there are general cognitive processes that are common to all humans, in addition to the essentially similar experiences of the world that all humans also share because of the embodiment (Evans and Green, 2006: 54-5, 63-4).

2.5.2.   Cognitive Linguistics vs. Functional Linguistics

Langacker (1998: 1) assumes that although CL extremely concerns with cognition, it forms part of functional linguistics (See also Langacker, 1987, 1991a, and 1991b). Nuyts (2005: 97) states that CL is functionally oriented and most of European cognitive linguists have their roots in functional linguistics, and have adopted CL views and notions without ignoring many of their functionalist perspectives.

The differences between CL and functional linguistics are hard to pinpoint. They are quite distinct from each other in a number of ways, but they are united in their focus on the function of language and the crucial role of social interaction. They both reject the idea that language is an independence mental organ from other kinds of knowledge. In other words, they accept a functionalist orientation, or usage-based approach, and the cognitive concerns as well (Gries, 2006: 1-4). In contrast to formalism which denies language use to understand linguistic structure, functional linguistics is characterized as a basic method of analysis that starts from the principle that the primary function of language is communication and linguistic structure cannot be analyzed independently of the uses: external (cognitive and sociocultural) factors. In addition, it refuses the claim that syntax is autonomous from other linguistic systems, like semantics and pragmatics (Butler, 2010: 268).

Langacker (1999b:15-6) shows six factors by which CL meets with functional linguistics:

1. *Environmental factors* refer to gravitation and interaction with the physical objects in our environment.

2. *Biological factors* include anatomical, physiological, perceptual, neurological, genetic nature that determine the range of our abilities and the quality of our mental experience.

3. *Psychological factors* refer to the idea that the linguistic descriptions have to be broadly consistent with what is known from psychological studies.

4. *Developmental factors* are concerned with especially with the development of cognitive abilities.

5. *Historical factors* mean that a language at any given time is not only the product of diachronic change, but is also, and more precisely, viewed as being in the middle of such change.

6. *Sociocultural factors* refer to the idea that even if language structure is common to all humans, the specific variables of a given language are culturally conveyed through social interaction because language is a fundamental component of culture.

Although it shares various assumptions with functional linguistics, CL goes beyond the functional explanations of linguistic form. Nuyts (2005: 71) tries to determine the main distinctions between functional linguistics and CL. He states that the former focuses on grammatical structure and a few attentions have given to the conceptual structure of language. It fundamentally concerns with the pragmatic view of language as social interaction and how language is structured and how it externally functions as a system of communication. Functional linguistics seeks to figure out the kinds of structures available in languages, what are the universal and variable structures in them, and how does all of this apply to the dynamics of communication, consisting of the speaker's intentions, the hearer's knowledge, the discursive context, etc. However, the latter concerns with how humans conceptualize or construe the world, via, how human language mutually interfaces with conceptual structure. In sum, what differentiates CL from functional linguistics is that the former emphasizes on linguistic knowledge as part of general cognition and on meaning being based on conventionalized conceptual structures like metaphors, image schemas, mental spaces and the like.

2.6. Cognitive Semantics and Cognitive Approaches to Grammar

Cognitive linguists have typically embraced a number of complementary different fields of study. Some of them have interested in the study of language structure and organization. This forms a sub-branch of CL is sometimes known as *cognitive approaches to grammar*. Other researchers have used language as a means of studying aspects of conceptual organization and structure. The field related to the analysis of aspects of the mind, such as knowledge representation and meaning construction, employing language as a lens for doing so, is often known as *cognitive semantics*.

However, it is essential to note that although the study of CS and cognitive approaches to grammar is sometimes separate in practice, they are closely related. That is, research in CL finds it necessary to examine lexical semantics and grammatical organization together. Hence, the next subsections attempt to shed light on some of these theories.

2.6.1. Cognitive Approaches to Grammar

Cognitive approaches to grammar are a group of theories that concern with relating grammar to cognition. The basic tenet of these trends is that grammar is conceptualization. Such approaches also concern with modeling the language system (i.e., the mental grammar) in ways that are consistent with the two commitments of CL: generalisation and cognitive commitment. They also adhere to the two guiding principles of CL: the symbolic thesis and the usage-based thesis (See sections 2.4.5. and 2.4.6.). Furthermore, cognitive approaches to grammar consider semantics as a core of their study. In other words, meaning is central to

the study of grammar. Although CS and cognitive approaches to grammar are two distinct fields of study in CL, their domains of enquiry are closely related to each other. They both attempt to investigate semantics and grammar together (Evans, 2007: 17-8).

The main cognitive approaches to grammar which focus on language as a system of knowledge involve Talmy's (2000) Conceptual Structuring System Approach; Langacker's Cognitive Grammar (1987 and 2008); and Construction Grammar. The following sections provide a brief overview of each type of approach.

2.6.1.1. Conceptual Structuring System Approach

Over the years, Leonard Talmy has published numerous articles on how the mind works, which have been collected in two volumes, entitled *Toward a Cognitive Semantics* (2000). Talmy has studied the linguistic representation of conceptual structure and explained how semantic structure encodes the language user's conceptual system. According to him, cognition consists of several substantive cognitive systems like perception, memory, attention, thought, reasoning, culture and other cognitive systems which Talmy has called them 'overlapping systems model of cognitive organization'. Since language is the major system of architecture of conceptual structure, Talmy aims to investigate its relations to other cognitive systems.

Talmy (2018: 1) is interested in both lexicon and grammar, and their relation to cognition. He considers grammatical units as inherently meaningful. According to the model, human language bifurcates into two subsystems, the grammatical and lexical. The grammatical subsystem includes the *closed-class* of linguistic forms that comprises of elements such as inflections, prepositions, conjunctions, grammatical relations,

lexical categories, word order patterns and syntactic structures. The lexical subsystem consists of the *open-class* of linguistic forms which are the roots of nouns, verbs, and adjectives.

These two conceptual subsystems represent two distinct aspects of the human conceptual system: the conceptual structuring system (the grammatical subsystem) and the conceptual content system (The lexical subsystem). Talmy considers the grammatical subsystem as the fundamental concept-structuring system of language, since "within any portion of discourse expressed in a particular language, the closed-class forms largely determine the structure of the conceptual complex evoked by the discourse, while the open-class forms contribute the majority of its content" (Talmy: 2000: 40). That is, he has focused more on elaborating the semantics of the closed-class subsystem than on the open-class system.

According to Talmy, the way language users convey entities and scenes is by encoding their conceptual system, which he calls Cognitive Representation (henceforth CR). The two subsystems of language "seem generally to specify different portions of a CR. Together, the grammatical elements of a sentence determine the majority of the structure of the CR, while the lexical elements together contribute the majority of its content" (Ibid: 21). While the meaning associated with the conceptual structuring system has schematic content, the meaning involved in the conceptual content system provides rich content and very detailed (Evans, 2009: 101). Put in another way, the structuring subsystem provides the skeleton for the description of certain scenes, events or situations, while the content subsystem provides the rich content or details relating to the scenes (Cadierno, 2008: 242). This distinction is summarized in Figure 4.

which shows the way language conventionally reflects the cognitive representation that humans externalize in language.
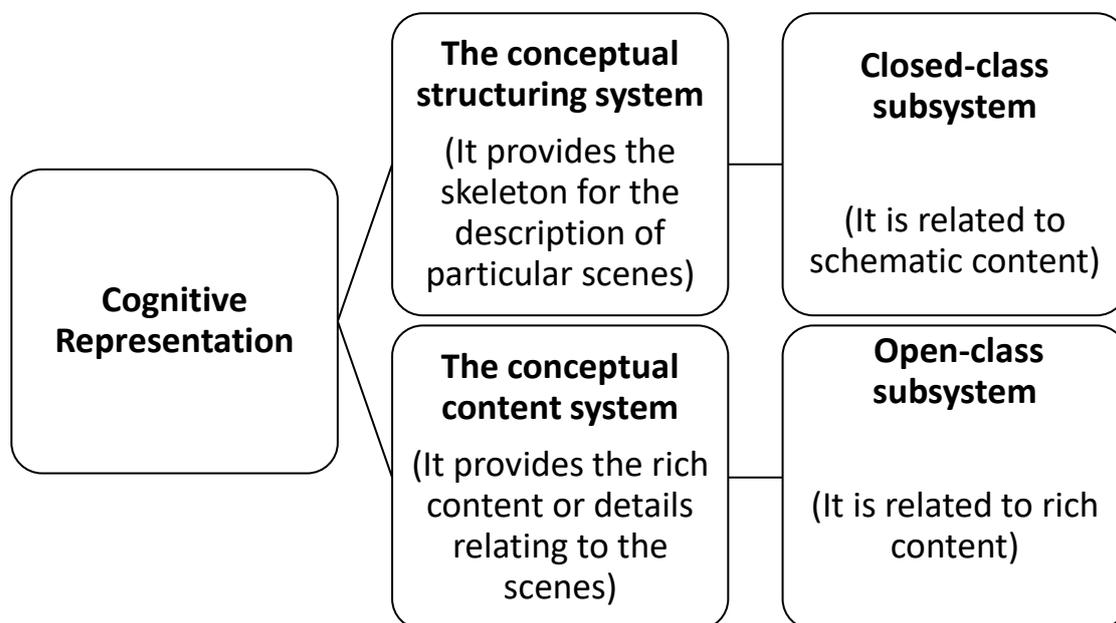
Figure 4: The branching in the cognitive representation

Talmy (2000: 76-219) also presents at least four key types of schematic systems in his Conceptual Structuring System Approach: the configurational system, the perspectival system, the attentional system, and force dynamic system. It is worth pointing out that, in this section, these three systems are described briefly, since they are fragmentized into a list of the subsystems that make up the conceptual structuring system. In any case, the study will return to this point in some detail in sections 2.7.2. and 3.3.2.

2.6.1.2. Cognitive Grammar

Cognitive Grammar is the theoretical approach to study language that has been developed by Ronald Langacker since the mid-1970s, and has been represented in his two famous volumes *Foundations of Cognitive*

Grammar, published in 1987 and 1991b. The fundamental claim of Cognitive Grammar is that grammar is symbolic in nature. That is, "lexicon and grammar form a gradation consisting solely in assemblies of symbolic structures" (Langacker, 2008: 5), which Langacker refers to as outrageous proposal. He observes that grammar is not distinct from semantics but is incorporated in the semantic pole, in the sense that "[t]here is no language-independent domain of grammar" (Langacker, 2005: 106).

In this regard, the term *grammar*, according to Langacker (2009: 79), is not treated as a subpart of language relating to syntax or morphology; but it widely refers to the language system as a whole, consisting of at least semantic structures, phonological structures, and symbolic links between them. This means that the levels of language, such as lexicon, morphology, syntax, and even discourse, form a continuum, not separate components. In this way, Cognitive Grammar has achieved an essential conceptual unification (For more details see section 2.4.5.).

Langacker's symbolic units are classified into two types: simplex units (such as words, idioms and other types of grammatical constructions) and complex units (such as constructions). Grammar consists of patterns for integrating simpler symbolic units with more complex ones. Construction is a complex word, a phrase or a clause (Langacker, 1991a: 293). In Langacker's theory, a construction is made up of two units: the form and conventional meaning. The formal structure represents the phonological pole, and the functional structure represents the semantic pole. The relationship that links these two poles is labeled as symbolic correspondence (Croft, 2001: 18). This correspondence arises from the

ways in which the trajector-landmark organization[1] of the component structures interacts.

Cognitive Grammar describes the head of a construction as the profile[2] determinant which determines the composite structure of the phrase as a whole. For instance, the prepositional phrase *under the bed* includes the profile of the preposition *under* (a relational predication) which indicates a RELATION, and the profile of the noun phrase *the bed* (a nominal predication) which indicates a THING. There is a correspondence between the landmark of *under* which indicates a schematic representation of some THING in SPACE and the profile of *the bed*. On the other hand, the relations between the components of a construction are described in terms of conceptual autonomy and dependence which are traditionally described in terms of heads and dependents. The former relates to nominal predications, whereas the latter to relational predications (Evans and Green, 2006: 581-6).

According to Cognitive Grammar, meaning equates with conceptualization. In other words, Cognitive grammar adopts the subjectivist view of meaning. This view argues that humans construe the world differently. That is, individual chooses a specific image from a range of alternatives. Langacker uses the term *imagery* to refer to human ability to construe a conceived situation in alternate ways. Furthermore, the grammar, for Langacker, is not deemed as generative or constructive.

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1 *Trajector-landmark organization* is a term coined by Langacker to refer to the semantics of linguistically encoded scene, in which one entity (the Trajector), that attracts our attention, is moving or undergoing changes in relation to another entity (the Landmark). The line along which an entity travels, either literally or metaphorically, is known as *path*

2 *Profile* is defined as the selection of a part from the whole (or base). For instance, *eye* profiles a substructure within the larger based structure, *arm*.

Instead, it is simply a structured inventory of symbolic knowledge shared by language users (Langacker, 1988: 6-13).

Like Talmy, Langacker assumes that closed-class of linguistic forms are inherently meaningful. However, he rules out the idea that open-class and closed-class forms are not two distinct conceptual subsystems. Instead, they belong to a unified structured inventory of conventional linguistic units which represents knowledge of language in the speaker's mind (Evans and Green, 2006: 481).

Langacker (2000 and 2008) suggests that the symbolic units that make up an individual's grammar are derived from usage. This takes place by a process known as *abstraction*. According to Langacker (2008: 525), abstraction is "the reinforcement of what is common to multiple experiences". It is the process by which structure emerges as the result of generalizing patterns through previous occurrences. For instance, a speaker who acquires English, as a result of repeated exposure, will discover recurring words, phrases and sentences in the utterances they hear, along with the set of meanings associated with these units (Evans and Green, 2006: 115). In other words, abstracted concepts are set up from multiple experiences basing on some common structure.

A particular type of abstraction is *schematisation* which is defined as "the process of extracting the commonality inherent in multiple experiences to arrive at a conception representing a higher level of abstraction" (Langacker, 2008: 17). That is, extracting schema out of the commonality of particular experiences. To illustrate, the meaning of the lexical item *ring* in the sentence *circular piece of jewelry worn on the finger* can become abstract by schematization and this commonality establishes the schema for any circular entity (Ibid.). In sum, schematization produces

schemas, like words, idioms, morphemes, etc., based on utterances that humans are exposed to during interaction.

However, Langacker assumes that grammar does not only derive from language use, but also, motivates language use through the process of *licensing* or *sanctioning* specific usage patterns. That is, a specific usage pattern instantiates its analogous schema. Therefore, *instantiations* can be defined as specific instances of use, emerging from a schematic representation (Evans, 2007: 113). This can be illustrated in Figure 5. For instance, the meanings of the 'agent' and 'patient' are schematic because they are instantiated by other more precise meanings. The patient of the word *break* can only be instantiated by breakable items, such as *glass* or *cup* but not *book*. If an individual encounters tokens of the transitive clause with other verbs than *break*, they may start to construct a particular schematic meaning for the transitive itself as Agent + Verb + Patient. This construction is highly schematic. It can be instantiated by many different verbs, but not all verbs are suitable. Thus, the verb '*go*' in *she goes the car* is impossible (Byram and Hu, 2017: 125).
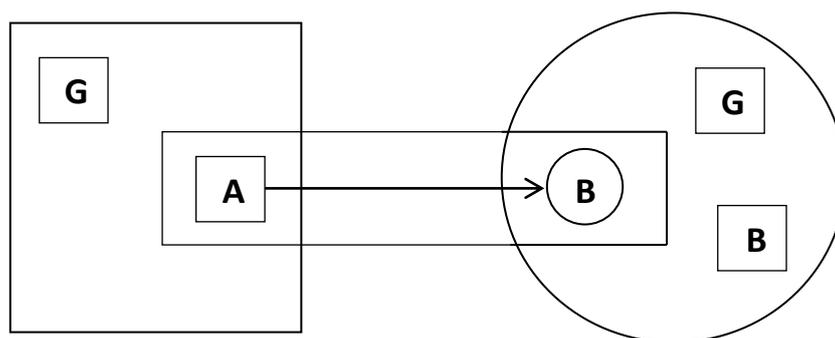
Figure 5: An instantiation of a schema (adapted from Langacker 2000: 10)

In Figure 5, the box G represents the grammar. On the other hand, the box U represents a specific usage event (i.e., an utterance). The box A in the grammar represents a conventional unit: a symbolic assembly. The

circle B represents a particular linguistic element within an utterance. The arrow indicates that a pattern B instantiates schema A, that is, A sanctions B (Evans and Green, 2006: 116).

Although there are several cognitive approaches to grammar, Langacker's Cognitive Grammar is regarded as the most detailed and influential in the realm of CL. It provides different central concepts, such as profile-base organization, trajector-landmark alignment, object-subject distinction, action chains, scope, specificity, focusing, prominence, perspective, and so forth (See section 2.7.).

2.6.1.3. Construction Grammar

Construction Grammar is an approach first developed by Fillmore, Kay, and O'Connor and followed by different theorists working within the domain of CL. The theory has emerged as a reaction to the generative approach which claims that idiomatic expressions are generated by rules. The fundamental claim of Construction Grammar is that the meaning of grammatical constructions is stored in the speaker's mind as a whole, rather than on the basis of their sub-parts. Construction grammar is not a monolithic theory. It represents a related group of theories, such as Kay and Fillmore's theory of Construction Grammar (1988 and 1999); Croft's Radical Construction Grammar (2001); Goldberg's Cognitive Construction Grammar (1995 and 2006); Bergen and Chang's Embodied Construction Grammar (2003), and Langacker's Cognitive Grammar which share certain of guiding principles about the nature of language.

However, these theories, which are classified under the umbrella of Construction Grammar, share a set of assumptions. Goldberg (2013: 15-16) identifies four characteristics:

1. *Grammatical constructions* are learned form-meaning pairings, without being separation between the two.

2. *Surface structure* refers to the idea that grammar is non-derivational component, and meaning is directly related to surface form.

3. *A network of constructions* mean that constructions, words, and morphemes form a network in which nodes are linked by inheritance relationships.

4. *Cross-linguistic variability and generalization* mean that there is no set of universal, innate constructions, but languages vary in a wide range of ways. Instead, generalizations are defined in terms of common cognitive processes.

2.6.2. Cognitive Semantics

Cognitive semantics has its root in the 1970s as a result of the objectivist approach, truth-conditional semantics, which emerged within formal linguistics which views language as an independent of other mental processes. Evans (2007: 5) defines CS as studying the relationship between experience, the conceptual system, and the semantic structure encoded by language. The cognitive semanticians aim to examine knowledge representation (conceptual structure), and meaning construction (conceptualization). As a result, research in CS tends to be concerned with the human mind as much as it is interested in studying linguistic semantics. This means that CS sees linguistic meaning as a manifestation of conceptual structure. As Talmy (2000: 4) said, "research on cognitive semantics is research on conceptual content and its organization in language".

Croft and Cruse (2004) provide a number of principles to study CS. A central hypothesis of CS is that semantics is viewed as a mapping from the linguistic to cognitive structures, rather than being derived from an independent unit. Furthermore, these conceptual structures are embodied and emerging from use. Consequently, four assumptions have been posited to describe CS: conceptual structure is embodied (Exemplified by Image Schema theory); semantic structure is conceptual structure (e.g., Conceptual Structuring system approach); meaning representation is encyclopedic (theory of Frame Semantics); and meaning construction is conceptualization (e.g., Mental Space theory). For more details see section 2.4.

Although techniques used in the study of meaning in CS are different, they are guided by these four assumptions. These techniques associated with this area of CL include theories such as Rosch's (1975, 1977, and 1978) *Prototype Theory and Categorization*; Fillmore's (1975, 1977, 1982, and 1985) *Frame Semantics*; *Domain-based Theory of meaning* developed by Langacker (1987); Lakoff and Johnson's (1980 and 1999) *Conceptual Metaphor Theory*; Fauconnier's (1994 and 1997) *Mental Spaces Theory*; Fauconnier and Turner's (2002) *Conceptual Blending Theory*; Johnson's (1987) *Image Schema Theory*; and others. A further sub-branch which is sometimes referred to as *cognitive lexical semantics*[1] includes the *Principled Polysemy model* (Tyler and Evans, 2003 and Evans, 2004), and *diachronic prototype semantics* (Geeraerts, 1997). Some linguists, such as Evans (2006, 2009, 2010, and 2013), have attempted to combine the study of all three areas of research of CL in a field known as the *Theory of Lexical Concepts and Cognitive Models*

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[1] Cognitive lexical semantics is an approach to study word-meaning.

(LCCM Theory). Below, the study attempts to provide a brief explanation of some of these theories that have specific relevance to the current study.

2.6.2.1. Rosch's Prototype Theory and categorization

Prototype theory is a psychological theory developed first by Eleanor Rosch (1975, 1977, and 1978) and other co-workers in response to the traditional view of categorization, which assumes that a category is defined as a set of necessary conditions. According to Rosch, humans do not actually categorize entities on the basis of *necessary and sufficient conditions*, but rather with reference to a prototypical member of the category (Ravin and Leacock 2000:13). A prototype can, therefore, be described as "a typical instance of a category, and other elements are assimilated to the category on the basis of their perceived resemblance to the prototype" (Langacker 1987: 371). It is an abstract mental representation that collects the main features that represent the examples of a particular category (Evans and Green, 2006: 249).

In her theory, Rosch has shown two general principles for category formation in the human mind: the principle of *cognitive economy* and the principle of *perceived world structure*, which lead to the human *categorization system*. The former asserts that "the task of category systems is to provide maximum information with the least cognitive effort", whereas the latter emphasizes that "the perceived world comes as structured information rather than as arbitrary or unpredictable attributes. Thus, maximum information is achieved if categories map the perceived world structures as closely as possible" (Rosch, 1978, 28 cited in Shalomi-Hen, 2000: 26). Rosch's notion of category prototypes was adopted from Wittgenstein's notion of *family resemblance* which means that not all the members of a category need to have a shared feature that

is peculiar to the category, but every member of the category is related to one another (Rosch et al., 1976: 382).

Rosch suggests the term *basic level* to refer to a taxonomic hierarchy. It provides a level of information, between the most inclusive categories and least inclusive levels. That is, between the superordinate and the subordinate levels respectively. Thus, the basic level of categorization is the level that has the highest degree of *cue validity*. For example, the feature *feathered* is more indicative of the category BIRD than the feature *biped*, i.e., the former is cue to the category BIRD than the feature *biped* which is least inclusive. In other words, the feature *feathered* has higher cue validity (Kreyer, 2014: 230). Evans (2007: 176) asserts that the superordinate level (or more inclusive) is related to categories like vehicle, animal and furniture, while the subordinate level (less inclusive) to those like sportscar, collie and rocking chair. This relationship can be schematically presented in Figure 6.

Level of inclusiveness

vehicle   mammal   furniture

car   dog   chair   Segmentation of
                                                      categories

saloon   collie   rocking chair
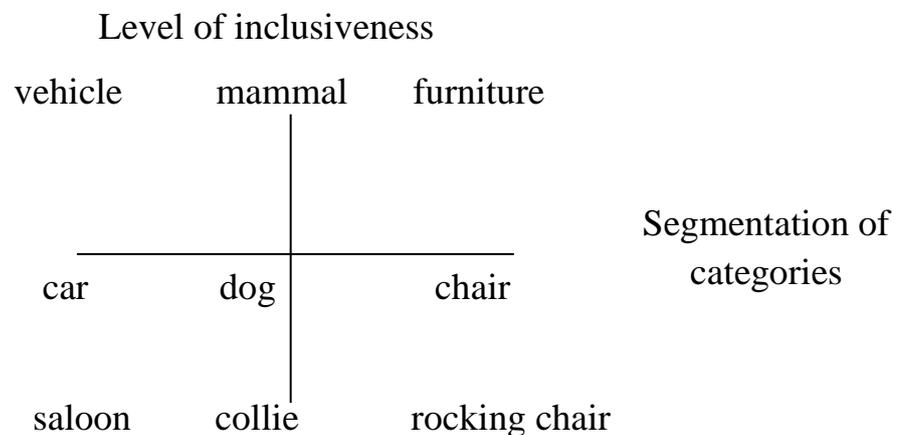
Figure 6: The human categorization system (From Evans and Green, 2006: 256)

The categorization system involves two dimensions: horizontal and vertical dimensions. The vertical dimension concerns with the level of inclusiveness of a given category. For instance, the category VEHICLE is higher up the vertical axis which has more members than its subordinate

(the category CAR), and thus it is more inclusive. On the other side, the category CAR is higher up the vertical axis which has more members than its subordinate (the category SALOON), i.e., the category SALOON is less inclusive than its superordinate. In contrast, the horizontal dimension concerns with the categories that have the same level of inclusiveness. Hence, while DOG and CAR are different categories, they occur at the same level of categorization (Ibid).

2.6.2.2. Frame Semantics

Frame semantics is an approach to CS developed by the American linguist Charles Fillmore in the 1970s and 1980s. Fillmore (1982: 111) defines his theory as "a particular way of looking at word meanings, as well as a way of characterizing principles for creating new words and phrases, for adding new meanings to words, and for assembling the meanings of elements in a text into the total meaning of the text". The basic idea of the theory is that language user cannot understand the meaning of a linguistic unit without accessing to all the encyclopedic knowledge related to that unit, since human language is not segregated from other forms of knowledge. This implies that frame semantics has influenced the encyclopedic meaning adopted within CS (Geeraerts, 2006: 15-6).

The fundamental construct in Frame Semantics is the term *frame*, which is a complex schematisation of knowledge structure. It is stored at the conceptual level and represented in long-term memory. Otherwise, frame refers to an experience which is essential for understanding a set of related words. They concern with the elements and entities linked to a particular culturally embedded scene from human knowledge structure (Evans and Green, 2006: 222). That is, human concepts are not separated

notions, but they are part of a wider coherent structure (i.e., a frame): a word activates the frame, highlights individual concepts within that frame, and often determines a specific perspective in which the frame is viewed (Geeraerts, 2006: 16). Frames are complex knowledge structures which are used to "represent all types of categories, including categories for animates, objects, locations, physical events, mental events and so forth" (Barsalou, 1992: 29). Thus, in order to understand a word, we must know the participants involved in the frame of that word.

One example of a frame is *the commercial transaction* frame which is used to show that a large group of words could be seen as semantically related to each other. According to Fillmore, the understanding of the related set of words such as *buy*, *sell*, *pay*, *spend*, *cost*, *charge*, *tender*, *change*, and so on, provides access to a commercial event frame which provides "the background and motivation for the categories which these words represent" (Fillmore 1982: 116-17). This commercial event frame consists of a group of attributes (concepts that represent one member of a larger category) known as *participant roles* which comprise buyer, seller, goods and money. Figure 7 illustrates the diagrammatic representation of the frame commercial event.
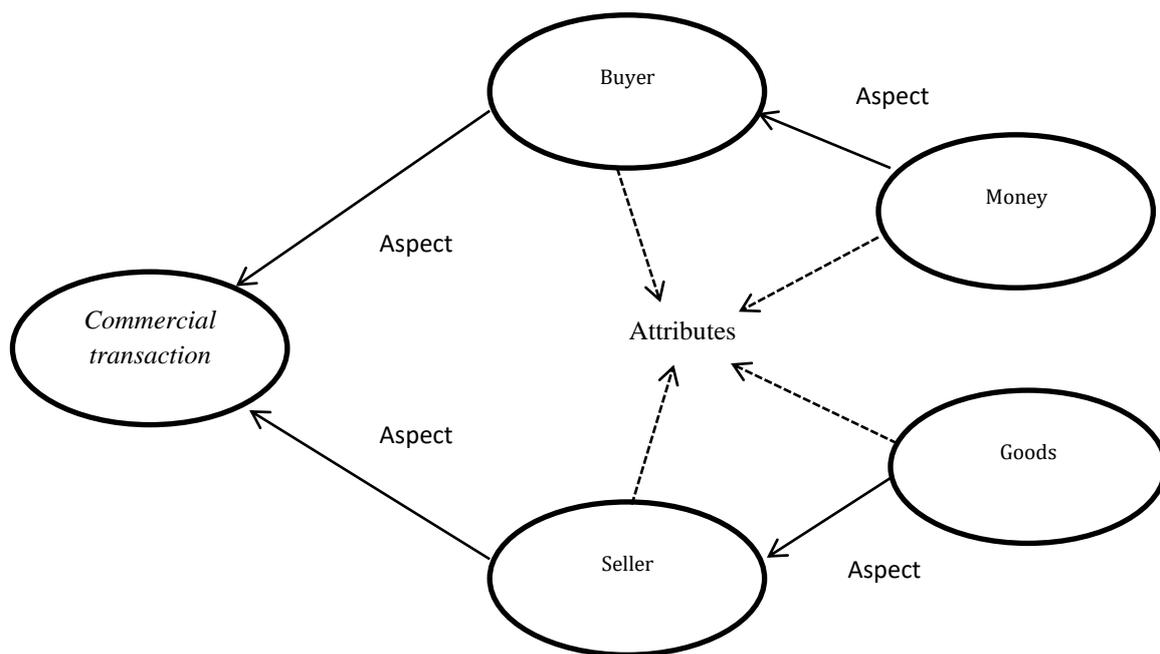
Figure 7: Partial commercial transaction frame (Following Evans and Green, 2006: 226)

Evans and Green (Ibid: 225-6) explain Fillmore's concept of *valence* (or argument structure) of a verb. They state that valence determines a number of participants required. For instance, some verbs like *buy* consider as 'divalent' because they require two participants: buyer and goods. Others, like *pay,* are 'trivalent' which require three participants: buyer, seller, goods. As a result, valence is not a stable characteristic of verbs, since the verb '*pay'* could require only two participants (as in I paid five hundred pounds) or four (as in I paid John five pounds for that pile of junk).

2.6.2.3. Domain-based Theory of Meaning

The theory of Domain is presented by Langacker (1987) as a complementary to Fillmore's theory of Frame Semantics. A basic assumption of CS is that lexical concepts are not dependent units in the

mind, but are embedded knowledge structures, which Langacker calls *domains*. According to Langacker, "Domains are necessarily cognitive entities: mental experiences, representational spaces, concepts, or conceptual complexes" (Langacker, 1987: 147). A domain is "any knowledge configuration which provides the context for the conceptualization of a semantic unit" (Taylor, 2002: 196). In other words, a domain consists of cognitive entities that are contextually conceptualized. For instance, expressions like *tire, handle, brakes, seats, gasoline, engine*, etc. are lexical concepts in the domain of CAR.

However, Evans and Green, (2006: 230-1) provide four aspects in which the theory of domains differs from the theory of Frame Semantics:

1. According to Langacker, the typical arrangement of domains that structure a single lexical concept is termed as the *domain matrix* of that concept.

2. The distinction between *basic domains* and *abstract domains*, which is not clear in Frame Semantics.

3. Domains are systematized in a hierarchical way in Langacker's theory.

4. Langacker's theory of domains is the structure and organization of human conceptual system in which other concepts and domains are understood, this is so-called *conceptual ontology.*

Langacker identifies a number of characteristics that define the theory of domain. One of these characteristics is the distinction between *basic* and *abstract domains*. Basic domains are those rooted in directly embodied human experience, such as space, time, various sensations, emotions and perceptions, and others (Langacker 1987: 148). Evans and Green (2006:

234) add that basic domains are directly associated with pre-conceptual embodied experience and provide "a 'range of potential' in terms of which other concepts and domains can be understood". By contrast, an abstract domain is defined as "any nonbasic domain, i.e., any concept or conceptual complex that functions as a domain for the definition of a higher-order concept" (Langacker, 1987: 150). Abstract domains need more embodied experience and relation with other domains to be clearly understood. For instance, human knowledge of the concept LOVE contains knowledge relating to basic domains, like touch, sexual relations. It also consists of knowledge relating to abstract domains, such as experience of more complex social activities like marriage ceremonies, hosting dinner parties, rituals and so forth (Evans and Green, 2006: 232).

Another characteristic is a *hierarchy of complexity* which means that domains are organized in a hierarchical way. In order to illustrate the theory of domains and show how they are related together in a hierarchy of complexity, consider the word *nail* which presupposes *knuckle* which, in turn, relies on *finger, hand*, *arm, body*, and, finally, *space* (Langacker 1987: 147-148). This hierarchy of complexity is illustrated in Figure 8.

A further feature is the concept of *dimensionality* which is the possibility of describing the structure of a domain in terms of its dimensions. Langacker (Ibid: 150-2) assumes that basic and abstract domains are dimensional in the sense that some domains are organized to one or more dimensions. For instance, the basic domains, such as TIME, TEMPERATURE and PITCH, are one-dimensional domains, while the domain SPACE is organized with two or three dimensions (Evans and Green, 2006: 236).
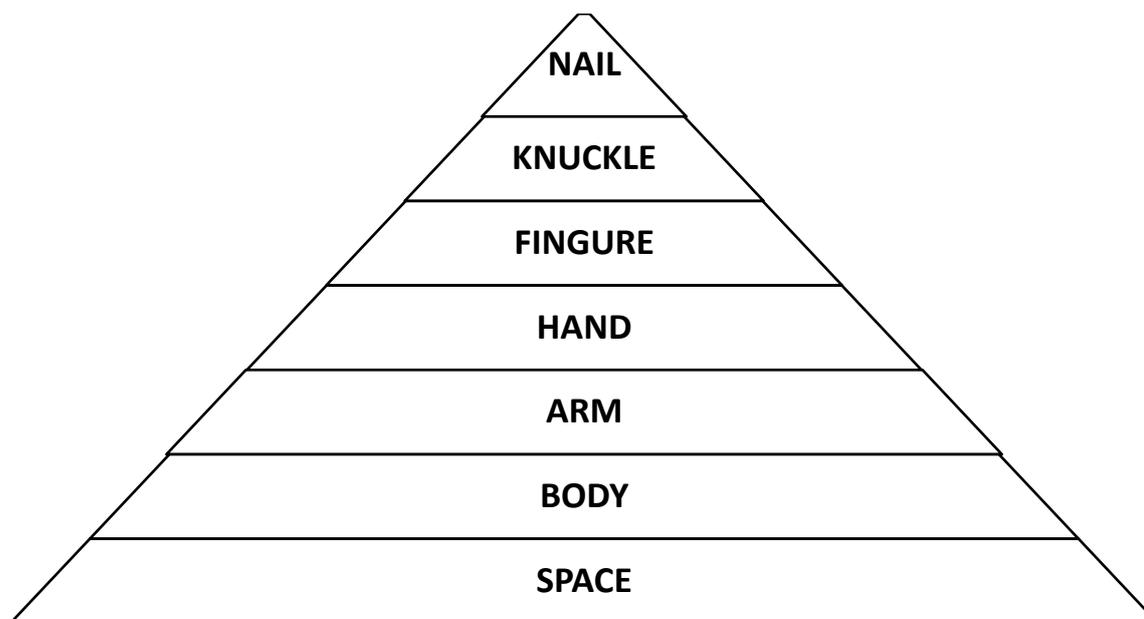
Figure 8: The hierarchy model of domains

Another principle of domains is that they can be distinguished in terms of being *configurational* or *locational*. This distinction is based on whether or not a certain domain is inherently calibrated. Langacker (1987: 153) assumes that "[w]hat makes a domain configurational […] is our capacity to accommodate a number of distinct values as part of a single gestalt". Using this criterion, he arrives at conclusion that space, time, and pitch are configurational domains, whereas color is locational.

In brief, the theory of domain, along with Fillmore's Frame Semantics, plays a vital role in the study of the conceptual structure in CS, providing the basis for a theory of encyclopedic semantics.

2.6.2.4. Conceptual Metaphor Theory

Traditionally, metaphors have been treated as figures of speech (i.e., rhetorical style). They have been based upon the notions of similarity or comparison between two given entities: the literal and the figurative meaning of an expression (Ungerer and Schmid, 2006: 114). However, CL has rejected the traditional idea assuming that metaphors are powerful

cognitive phenomena for our conceptualization of the world. This led George Lakoff and Mark Johnson to develop a theory of *conceptual metaphor* (henceforth CMT), in their radical book *Metaphor we Live by* (1980). Later, Lakoff (1993) calls his theory as *Contemporary Theory of Metaphor*. The theory has been influenced by different disciplines, particularly social sciences, cognitive psychology and anthropology.

According to Lakoff and Johnson (1980: 3), "metaphor is pervasive in everyday life, not just in language but in thought and action". This means that our conceptual system is metaphorically structured. Indeed, metaphor is non-linguistic in nature, but it is a way of conceptualizing the world. In other words, "the locus of metaphor is not in language at all, but in the way we conceptualize one mental domain in terms of another" (Lakoff, 2006: 185).

The conceptual metaphor is described as a systematic and asymmetric conceptual mapping between the source and target domain: cross-domain mappings projecting structure from the source onto the target domain. The source domain provides the necessary structure for the target domain. Understanding one domain in terms of another consists of a group of fixed correspondences between the two domains. These correspondences are technically called as *mappings*. This is illustrated in Figure 9.
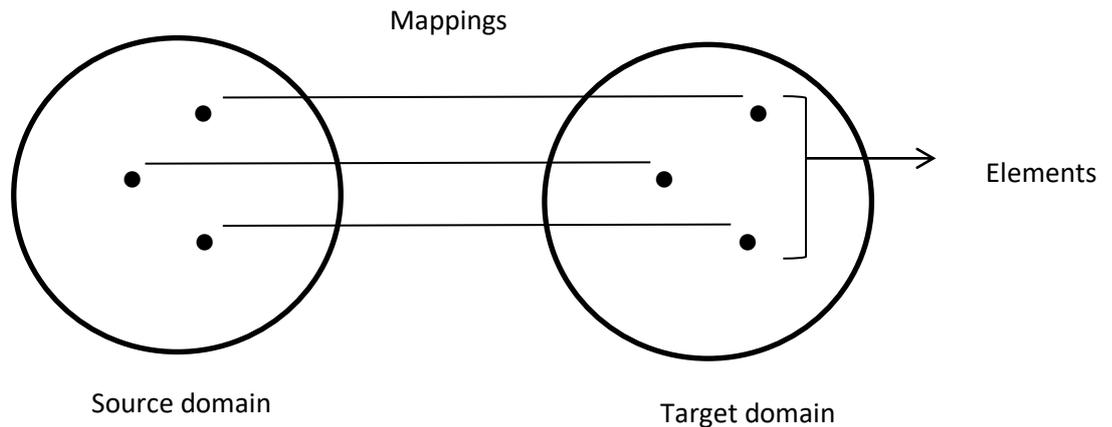
Figure 9: Metaphorical mapping (after Lakoff and Johnson, 1980)

Lakoff and Johnson (1980: 15) have classified metaphor into three types: structural, orientational, and ontological metaphors. Structural metaphors are those in which one concept is metaphorically structured and expressed in terms of another. In other words, they are used to enable speakers to understand target domain by means of the structure of source domain, since it provides a relatively rich knowledge structure for the target domain. Orientational metaphors are those that allow large numbers of metaphors coherent with each other (Kövecses, 2002: 46). Orientational metaphors are not metaphors which "structure one concept in terms of another but instead organize a whole system of concepts with respect to one another" (Lakoff and Johnson, 1980: 14). Most of them are concerned with spatial orientation such as up-down, in-out, front-back, on-off, deep-shallow, central-peripheral and so on. Orientational metaphors are not arbitrary, but they usually arise from people's physical and cultural experiences, so it can vary from one culture to another. Ontological metaphors are constructed depending on Human's experience with physical objects. Their formation enables human beings to view non-physical entities such as events, activities, emotions, ideas and the like, as physical entities and substances (Ibid: 26).

One of the fundamental aspects of CMT is that conceptual metaphors are unidirectional which means that the direction of metaphors is from a source domain to a target domain but not vice versa: from the more concrete to the more abstract. For instance, in the metaphor *love is a journey*; *love* is only conceptualized in terms of *journey* but not vice versa: we cannot describe travellers as lovers, or car crashes in terms of heartbreak, and so forth (Evans and Green, 2006: 296-7). Another aspect of CMT is that metaphorical mappings are not random or arbitrary, but represented in the body and human's experience in the physical and cultural world. Furthermore, they are partial, not total; viz., the structure of the source domain is only partly projected to the structure of the target domain. In addition, metaphorical mappings are also systematic across different conceptual domains (Yu, 2012: 1287).

2.6.2.5. Fauconnier's Mental Spaces Theory

Mental Spaces Theory (MST) is originally developed by Gilles Fauconnier in his two prominent books to demonstrate the theory: *Mental Spaces* (1994) and *Mappings in Thought and Language* (1997). His theory is grown up as a reaction to the traditional approach of possible worlds in truth-conditional semantics which defines the meaning of a specific proposition by illustrating the conditions that make a sentence true. Fauconnier, like other cognitive theorists, has shown dissatisfaction to the theory of truth-conditional semantics. He replaces the notion of a possible world with that of a mental space, and claims that the mental space is a conceptual structure (Croft and Cruse, 2004: 367).

Mental spaces have been defined as temporary conceptual packets which are connected to long-term schematic knowledge known as *frame*. They proliferate when human thinks and talks, for purposes of local

understanding and action of narratives, metaphors, and speech acts (Fauconnier, 1997: 11). According to Fauconnier, meaning is built up of two cognitive processes: the building of mental spaces in the process called *space builders*; and the establishment of mappings between those mental spaces. Space builders are linguistic elements, such as prepositional phrases, adverbs, connectives, etc., which serve as triggers for setting up a new mental space. They "require the hearer to 'set up' a scenario beyond the 'here and now', whether this scenario reflects past or future reality, reality in some other location, hypothetical situations, situations that reflect ideas and beliefs, and so on" (Evans, 2007: 202-3).

Mental spaces contain elements that either entities constructed on-line or pre-existing entities in the conceptual system. These elements spread to neighboring spaces in the process known as *propagation* to form a network or lattice of mental spaces. This process is governed by the *Optimization Principle* (Evans and Green, 2006: 371-2). Different mental spaces involve different information about the same elements, but each space consists of a representation that is logically organised (Coulson and Oakley 2000: 177).

Elements in a mental space usually have counterparts in other mental spaces. Those counterparts are used to explain how mental spaces are connected to each other by connectors which set up correspondences, or mappings, between counterpart elements. Put it differently, counterparts occur when two or more elements in different mental spaces have a related pragmatic function (Fauconnier, 1994: 18).

Moreover, the process of building lattices of mental spaces starts from a so-called *base space* (Hougaard and Oakley, 2008: 3). New spaces, such as belief space, possibility space, past spaces, future spaces, hypothetical

Space, etc., are then set up. This can be shown in the following scenario, construed by Fauconnier (1997: 44), and presented in Figure 10.

> *Achilles sees a tortoise. He chases it. He thinks that the tortoise is slow and that he will catch it. But it is fast. If the tortoise had been slow, Achilles would have caught it. Maybe the tortoise is really a hare.*

The element in one mental space is accessed by its counterpart element in another mental space. This happens through *the Access Principle* (also called Identification principle). Fauconnier (1997: 41) refers to this principle as "an expression that names or describes an element in one mental space can be used to access a counterpart of that element in another mental space". That is, connectors are a kind of conceptual projection.
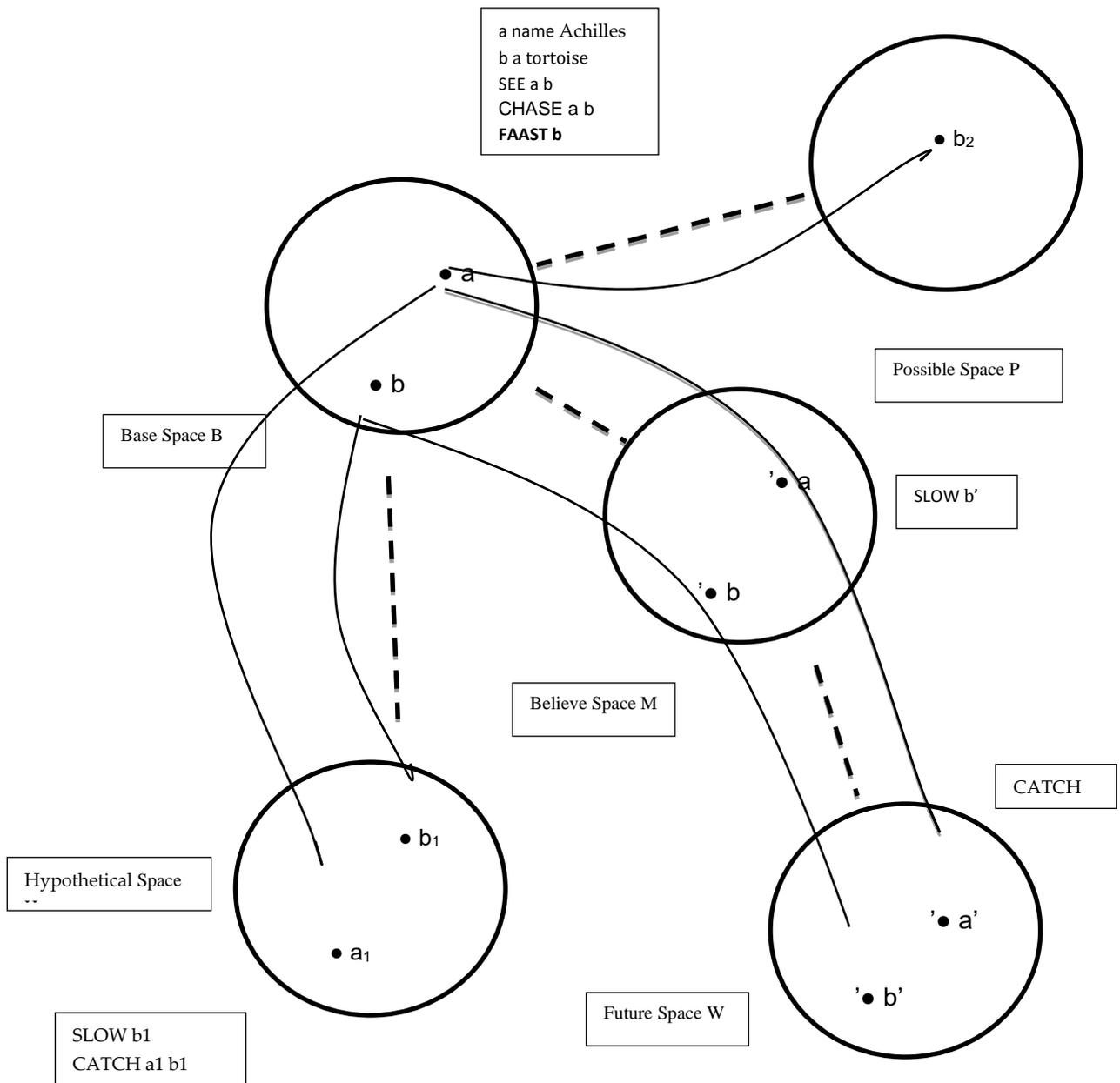
Figure 10: Mental space connections (From Fauconnier, 1997: 48)

Later, Fauconnier and Turner have developed a theory for what they call conceptual blending which is seen as a development of MST. Therefore, the following section is assigned to discuss this theory.

2.6.2.6. Fauconnier and Turner's Conceptual Blending Theory

Conceptual Blending Theory (henceforth CBT) has been originally proposed by Fauconnier and Turner in a serious of articles (Fauconnier and Turner 1994, 1996, 1998, 1999, 2002, and 2003, Turner and Fauconnier 1995, 1999, and 2000) to create new meaning. It is a set of cognitive operations for blending words, images, and ideas in a network of mental spaces. It gives us the ways to dynamically create and understand the world around us. The theory draws crucially on Fauconnier's previous work on mental spaces and the cross-space mappings between them. It is also inspired by Lakaff's CMT which considers metaphor as a way of thinking embodied in our mind (See section 2.6.2.4.).

The basic assumption of conceptual blending is that it is "the mental operation of combining two mental packets of meaning—two schematic frames of knowledge or two scenarios, [. . .] to create a third mental packet of meaning that has new, emergent meaning" (Turner, 2002: 10). The process of connecting mental spaces is referred to as conceptual integration network. While CMT assumes the existence of a source and target domain, conceptual integration network consists of at least two input spaces, one generic space and one blended space, and there is also a cross- space mapping, which connects counterparts in the input spaces (See Figure 11).

In the process of blending, a conceptual structure emerges through mapping elements and structure from the two differently framed input spaces or from two different scenarios with different background frames to the blended space. These two input spaces are represented in the notation by solid lines. The generic space finally contains conceptual

elements that are shared by both input spaces. The blended space emerges from integrating the three spaces: generic and input spaces (Thielemann, 2020: 200-1). Although blended space gets elements from both input spaces, it is "characterized by new emergent conceptual structure in its own right, whose set-up differs from those of the two input spaces" (Ungerer, 2006: 259). That is, new information can be found in blended space that is not presented in any other space of the lattice.
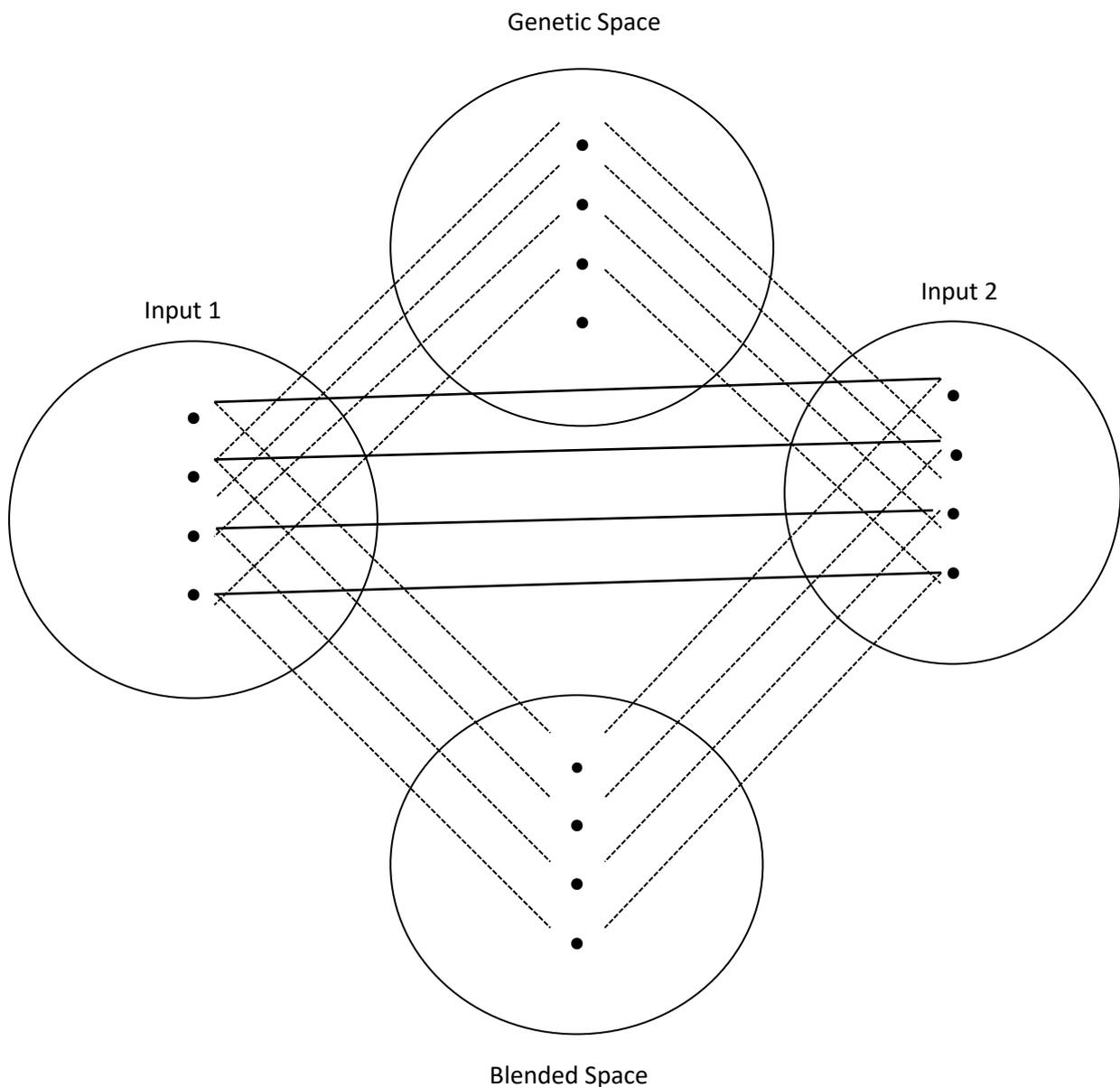

Figure 11: The conceptual integration network (According to Fauconnier and Turner (2003: 46)

The process of mapping these four mental spaces takes place through three operations: *composition* of elements on the input spaces and combining them in blended space; adding new structures to the blended space in an operation known as *completion*; and finally running of it in as operation called *elaboration* (Fauconnier and Turner, 2003: 48). All these three operations lead to emergent structure in the blend.

Fauconnier and Turner (2002: 120) propose four kinds of integration networks: simplex networks, mirror networks, single-scope networks and double-scope networks. Simplex networks consist of two input spaces, the first contains the role of a frame and the other consists of specific elements relating to the values. For instance, in the sentence *Jack is the father of Marry*, one input space has the roles of *father* and *daughter* and the other has the values of *Jack and Marry*. Mirror networks have a common organizing frame shared by all the spaces, including the blended space. In single-scope networks, both input spaces have different organizing frames and only one of them gets projected to the blended space. Finally, double-scope networks also have input spaces with distinct frames, but parts of both of them are used in the blend and in a new emergent structure. It can resolve clashes between input spaces which differ in content.

Recently, CBT is applied in various non-linguistic fields of human activity, including rituals, art or tool manufacture and use. Therefore, it is not only important to explain the role of language in meaning construction, but it is also "fundamental cognitive operation that is central to the general properties of human thought and imagination" (Evans and Green 2006: 439).

2.6.2.7. Johnson's Image Schema Theory

In his (1987) book *The Body in the Mind*, Mark Johnson introduced the notion of *image schemas* which are embodied within our conceptual system. The notion then was developed by other cognitive linguists, such as Lakoff (1987); Langacker (1987); and Talmy (1983 and 1985b). Image schemas are seen as structures derived from sensory and perceptual structure as we directly interact with and move about in the world around us. They are abstract concepts containing patterns emerging from repeated instances of embodied experience. Because image schemas are functions of our bodily interaction in the world, they arise in relation to our physical and psychological development during early childhood through a process known as *perceptual meaning analysis* (Evans, 2007: 5).

Image schemas are "recurring dynamic pattern of our perceptual interaction and motor programs that gives coherence and structure to our experience" (Johnson, 1987: 33). On the other hand, Oakley (2006: 215) defines image schemas as "condensed re-description of perceptual experience for the purpose of mapping spatial structure onto conceptual structure". That is, they are the pre-linguistic structures of object relations in time and space.

Hampe (2005: 1-2) specifies four main characteristics of image schemas. First, they are directly meaningful preconceptual structures. Second, they are highly schematic gestalts. Third, they are continuous analogue patterns. Finally, they are internally structured, including only a few parts. Moreover, Evans and Green (2006: 179-87) introduce the following ten features of image schemas:

1. Image schemas are pre-conceptual in origin: they are directly grounded in embodied experience in the sense that they derive from sensory structure.

2. They can give rise to more specific concepts: they can lead to more abstract conceptions. For instance, the lexical concepts related to prepositions like *in, into, out, out of* and *out from* are all associated with the CONTAINER schema.

3. They derive from observation of the world: it is important to keep in mind that image schemas derive from the bodily interactions with the world around us. For instance, the image schema of FORCE arises from, or grounds in, the way in which we act upon other entities.

4. Image schemas are inherently meaningful: since image schemas are embodied, they are meaningful, viz., embodied experiences have predictable consequences. In such a way, image schemas influence the conceptual or semantic structure of human language making them meaningful.

5. They are analogue representations: they are not represented in the mind in terms of words and pictures, but in terms of holistic sensory experiences. Because image schemas originate from sensory experience, they are represented as summaries of perceptual states which are stored in memory. However, what makes image schemas conceptual rather than purely perceptual in nature is that they evoke concepts that can be consciously accessible.

6. They can be internally complex: they have complex aspects that are analyzed separately. For instance, the SOURCE-PATH-GOAL, or what is called PATH schema contains a starting point (SOURCE), a

destination (GOAL) and a series of contiguous locations in between associating the source with goal.

7. They are not the same as mental images: they are not real images. Instead, they are schematic and therefore more abstract than ordinary images which derive from our embodied experience.

8. They are multi-modal: image schemas are abstract multi-modal patterns of experience, not simply visual, in the sense that they are buried deeper within the cognitive system and therefore not available to conscious introspection.

9. They are subject to transformations: they can be understood as transformations from, or mapping of, one image schema onto another. For instance, the transformation from count nouns into mass nouns and vice versa, what Talmy (2000) termed debounding and excerpting, to provide linguistic evidence for the count-mass image-schematic transformation.

10. Image schemas can occur in clusters: they do not simply exist as single entities, but as clusters or networks of related image schemas linked together.

Basing on different cognitive linguists, a number of image schemas are listed below:

Table 1: A list of image schemas (from Evans and Green, 2006: 190)

SPACE	UP-DOWN, FRONT-BACK, LEFT-RIGHT, NEAR-FAR, CENTRE-PERIPHERY, CONTACT, STRAIGHT, VERTICALITY
CONTAINMENT	CONTAINER, IN-OUT, SURFACE, FULL-EMPTY, CONTENT
LOCOMOTION	MOMENTUM, SOURCE-PATH-GOAL
BALANCE	AXIS BALANCE, TWIN-PAN BALANCE, POINT BALANCE, EQUILIBRIUM
FORCE	COMPULSION, BLOCKAGE, COUNTERFORCE, DIVERSION, REMOVAL OF RESTRAINT, ENABLEMENT, ATTRACTION, RESISTANCE
UNITY/MULTIPLICITY	MERGING, COLLECTION, SPLITTING, ITERATION, PARTWHOLE, COUNT-MASS, LINK(AGE)
IDENTITY	MATCHING, SUPERIMPOSITION
EXISTENCE	REMOVAL, BOUNDED SPACE, CYCLE, OBJECT, PROCESS

2.7. Construal Operations

One of the fundamental properties of our mind is how we can conceptualize or construe the same series of actions in different ways. In CL, this is referred to as *construal*. Construing an entity or situation means interpreting or conceptualizing it in some way (Verhagen, 2007: 48). It is "our manifest ability to conceive and portray the same situation in alternate ways" (Langacker 2008: 43). This means that we can give multiple interpretations to the same situation. Consider the following two situations:

a. *The glass is half empty/ the half empty glass.*

b. *The glass is half full/ the half full glass.*

Someone will probably say that the glass is half-full. Another may look at it in a different way and proclaim that it is half-empty. However, both are correct. The speaker of (a) looks at the empty part of the glass, neglecting the remainder of the water, whereas the speaker of (b) looks at the full part of the water. Therefore, both expressions describe the same situation from different perspectives (Radden and Dirven, 2007: 22). This can be seen in Figure 12.
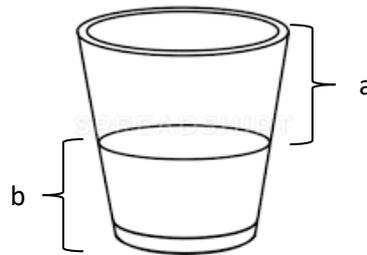
Figure 12: Half-full or half-empty glass

Construal operations have been classified by four cognitive linguists: Ronald Langacker (1987 and 2008), Leonard Talmy (1988 and 2000), and William Croft and Alan Cruse (2004). Therefore, the following subsections shed light briefly on these different but overlapping, versions of the construal operations (For more details, see section 3.3.2.).

2.7.1. Langacker's Focal Adjustments of Construal Operations

Langacker (1987: 116–37) differentiated between three classes of construal operations, that he called *focal adjustments*: selection,

perspective, and abstraction. Selection relates to the human being's ability to select some aspects of a scene to focus on and ignoring others. Basic domains of the selected item include space, time, colour, pitch, temperature, pressure, pain, odour, emotion. Perspective describes the viewpoint from which a particular scene is viewed. It consists of four aspects: figure-ground alignment, viewpoint, deixis, subjectivity and objectivity. Finally, abstraction relates to the level of precision and detail at which a scene is described.

Langacker (2008: 55-73) revised his classification, consisting of four operations: specificity, focusing, and perspective, dynamicity. Specificity corresponds to the previous category of abstraction, and perspective has remained the same. Focusing includes the aspect of selection and the phenomenon of figure-ground alignment (or foreground-background arrangement) which was categorized under the perspective operation in the previous classification. Prominence refers to the saliency of certain aspects of a scene in relation to others. The concepts of profiling and trajector-landmark alignment fall under the category of prominence

2.7.2. Talmy's Imaging Systems of Construal Operations

Talmy (1988: 155-206) differentiated between four classes of construal operations, under the name of *imaging systems*: schematization, perspective, attention, and force dynamics. There is a plausible overlap between Talmy's and Langacker's classification. That is, the categories of schematization, perspective and attention correspond to Langacker's notions of specificity, perspective and prominence. The new category in Talmy's classification is force dynamics which refers to the idea of how entities of a scene physically interact with each other with respect to force.

Talmy (2000: 40–84) also revised his classification, categorizing it into four major systems: configurational structure system, perspectival system, attentional system, and force dynamics system. The new classification is similar to the previous one with more detailed branches. The first category includes six patterns: plexity, boundedness, dividedness, degree of extension, pattern of distribution and axiality. The second category has several schematic categories, including location, distance, mode and direction. The third construal operation consists of three factors: strength, pattern and mapping. The final category differentiates between two factors: agonist and antagonist.

2.7.3. Croft and Cruse's Model of Linguistic Construal Operations

Croft and Cruse (2004: 40-59) were not satisfied with Talmy's and Langacker's classifications, considering them as incomprehensive. They state that although the two classifications share many categories in common, a number of categories (such as framing, image schema and metaphor) do not exist. Accordingly, Croft and Cruse propose a model that combines both Talmy's and Langacker's classifications with some modifications. They classify construal operations under four categories:

1. Attention/salience includes selection (profiling and metonymy), scope (scope of predication, search domains, and accessibility), scalar adjustment (quantitative and qualitative), and dynamic (fictive motion and summary/sequential scanning).

2. Judgement/comparison includes categorization, metaphor, and figure/ground.

3. Perspective/situatedness includes viewpoint (vantage point and orientation), deixis (spatiotemporal, epistemic, empathy), and subjectivity/objectivity.

4. Constitution/Gestalt includes structural schematization, individuation (boundedness, unity/multiplicity, etc.), topological/ geometric schematization (container, etc.), scale, force dynamics, and relationality.

There is a direct relationship between these construal operations and the viewing arrangement of a scene. They play a vital role in the conceptualization of the entities of a scene and the way they are arranged. Accordingly, these construal operations should be given full consideration.

CHAPTER THREE

Scene and Sequential Scanning of Viewing Arrangement Model

3.1. Introduction

This chapter aims to make a broad survey for the concept of scene and its structure by developing a configurational model of dynamic scene structure. It is divided into two parts: scene and sequential scanning of viewing arrangement model. The former seeks to answer the following questions: What does the scene mean? How is it structured? What is the difference between scene and event? What are the main elements of a scene? How are such elements arranged? And what is the difference between summary and sequential scenes? The latter deals with the explanation of the model developed to analyze the selected scenes, and examines the analysis of the scene in terms of scene-building and construalization.

3.2. Scene

Defining a scene and characterizing its elements and boundaries are enormously important ideas that have to be taken into account. Generally speaking, a scene is a perceptual unit that can be defined as a series of actions happening in the same spatiotemporal situation. In other words, it occurs in a single place without a break in time. A scene is linguistically determined in the sense that it can be a word, sentence or text. A single scene may include an action or a group of actions and the combination of scenes structures an event.

This idea leads us to make a distinction between scene and event. Most of cognitive studies do not differentiate between scene and event. Instead, they consider every clause as an event. In other words, an event is represented in the meaning of a verb. Gisborne (2020: 4) defines events in terms of cognitive linguistic perspective as:

> verb meanings within conceptual structure. That is, they are mental representations of verb meanings. Events can be simple or complex, and have a number of different properties, such as structure (where events have sub-events), participants, causes and times.

It is rather misleading to state that scene and event are synonymous. Both scene and event form the main parts of our visual representation. Like stories, our life is full of scenes (as scenes of eating, playing, studying, walking, etc.) that interlock, one after the other. Such scenes are joined together to structure events. Therefore, the key difference between scene and event is that the latter is wider than a scene, consisting of different, but related, scenes. In other words, an event is a series of two or more scenes that are related in a coherent way, while a scene is an action or a group of actions that occur in the same place and time.

Another way to pinpoint the differences between them is that event, unlike scene, includes a change in time, place, theme and the main participant(s). For instance, an event might include distinct scenes, involving a person going to a supermarket and purchasing eggs, bringing them home in their car, lighting up the cook by their mother, pouring the oil into the pan, letting the oil boil, putting eggs in the pan, and then eating eggs that have been prepared. It is obvious in this event that there is a change in place and time from supermarket to car and then to home. The change also happens to the participants involved in this event from a person who buys the eggs to their mother who prepared the meal. In sum,

the event violates the main four characteristics of a scene. The distinction between scene and event is illustrated by Figure 13.
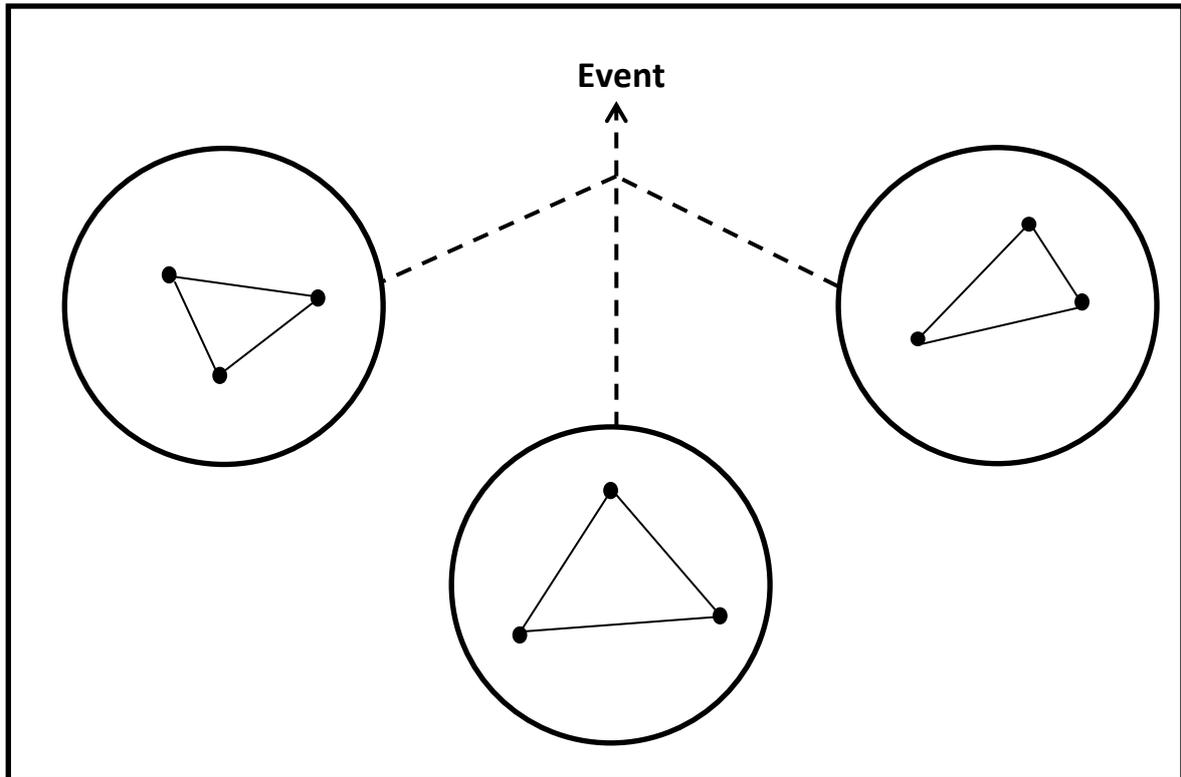
Figure 13: Scene-event distinctions

In this diagram, points represent actions within a single scene and the lines the relations connecting actions together (i.e., schematic relationships). Each circle refers to a scene that is configured within the same time, place, the main participant(s), and theme. A series of related circles (scenes) represents an event. Any penetration or change in these characteristics leads to the transition to another scene and thus the formation of a new event.

Time and space, which form the basic conceptual domains, have long been viewed as the key building blocks in CL. They are basic in the sense that all other domains are structured depending on them. Time and space are configurated in terms of motion because a change in location from

one place into another is governed by a specific time and place, (See schematic domain in Figure 16). These two basic conceptual domains form the boundaries of a scene. In other words, a scene is a container for actions and entities that are bounded by the same time and place.

3.2.1. Scene Levels of Analysis

Linguistically, a scene may be a word, sentence or text, depending on the time and space it occurs in. Furthermore, a scene can be segmented into sequences of subscenes or actions which are connected by set of causal relations. They are grouped together into cluster of scenes to configurate the whole video tape. Three levels of analysis can be used in the segmentation of a scene: macro, micro, and nano scenes. Macro and micro scenes are stated and described explicitly, while nano scenes are implicitly expressed in the sense that actions are not described plainly. The three levels of analysis are elaborately discussed in the following subsections.

3.2.1.1. Macro Scene

Macro scene (henceforth MAS) is a unified agglomeration of a scene. It contains a group of related actions (which are called micro scenes) that are organized sequentially. It carries the general idea of a scene. In other words, the whole scene is understood through its major actions and entities, without reference to its details. Although a scene may include various actions and entities, the principal participants, motion actions and causal relations of a scene play a vital role in perceiving that scene. The following scene, which is about *preparing a meal*, illustrates MAS:

1. *The most favorite method for preparing a simple and delicious meal by using rice and vegetables. First, wash rice to remove dirt. Then, boil the water by pouring 3 cups of water into a medium*

saucepan, and bring the water and rice to a boil over medium heat. Next, cut the vegetables into small pieces. After that, pour the oil in a frying pan and then put chili sauce, onion and a little bit of salt. Later, add vegetables and sauté until soft. After frying vegetables, add the cooked rice to the vegetables and stirring them together around 3 minutes. Afterwards, remove the rice and vegetables from the heat and put them in a bowl. Finally, set it aside to rest for at least five minutes. Now the delicious meal is ready to eat.

It is absolutely clear that this scene is composed of different process actions (e.g., *washing rice*, *boiling the water*, *cutting the vegetables*, *pouring the oil*, *putting chili sauce,* etc.) happened in the same space (e.g., in the kitchen) and time (i.e., lunchtime or dinnertime), depending on the situation the scene occurs. The actions of this scene also revolve around the same theme (i.e., how to prepare a simple and delicious meal by using rice and vegetables), and a single participant (the person who prepares the meal). In other words, the four elements of a scene can be recognized here: time, space, theme and the main participant(s). Any change of one of these four elements means moving into another scene.

However, some of the fundamental actions and entities play a major role in determining and describing the other secondary actions which do not affect the general understanding of the scene. In other words, the scene can be described in terms of three fundamental actions: *rice and vegetables are cooked separately, then they are mixed together*, and *finally they are put in a bowl to be ready to eat*. These are the general actions by which we can grasp the scene as a whole. The change in the causal relationship of these main actions leads to change in the conceptualization of the scene.

3.2.1.2. Micro Scenes

Unlike MAS, micro scenes (henceforward MISs) are individual fragments located in the meaning of each verb in MAS. They are a group of subscenes that are arranged sequentially in such a way that the first MIS cannot be preceded by the second. The combination of these scenes leads to understand the scene as whole, and thus to form a unified scene (i.e., MAS). That is, they are different explicit actions united within larger scene.

The MISs are connected to each other in the sense that each MIS complements the other as an inseparable chain. When one MIS is truncated, however, the arrangement of MISs will be different, the whole scene will be affected, and so it will be difficult to understand. Each MIS depends in its interpretation on the scenes that precede and follow it. MISs are built in alignment like bricks in a wall, if we cut a part, it causes a gap in the understanding of the whole scene.

Furthermore, causality plays a major role in moving from one MIS to another: as causation changes, so does the MIS. For instance, MAS (1) above involves twelve explicit sequential MISs, these are (a) *wash rice to remove dirt.* (b) *boil the water by pouring 3 cups of water into a medium saucepan, and* (c) *bring the water and rice to a boil over medium heat.* (d) *cut the vegetables into small pieces.* (e) *pour the oil in a frying pan and then put chili sauce, onion and a little bit of salt.* (f) *add vegetables, and* (g) *sauté until soft.* (h) *add the cooked rice to the vegetables, and* (i) *stirring them together around 3 minutes.* (j) *remove the rice and vegetables from the heat, and* (k) *put them in a bowl.* And (l) *set it aside to rest for at least five minutes.*

If we cut off one of these MISs, the understanding of the whole scene (i.e., how to prepare a meal) will be affected. Moreover, each MIS has a certain causal relationship different from the other. For example, the causer of MIS (a) above, *wash rice to remove dirt*, is the person who do the washing, while the causee is *rice*. However, the causee of the second MIS in (b) is *the water,* in (c) is *the water and rice,* in (d) is *the vegetables,* and so on. In sum, the causal relationship changes with the change of MISs.

3.2.1.3. Nano Scenes

The third level of analysis, termed *Nano scenes* (henceforth NASs), is related to the segmentation of a scene into implied cognitively meaningful scenes. The idea of NASs is inspired by the theory of script, coined by the psychologist Silvan Tomkins (1979), which concerns with a sequence of related actions that occurred in a particular situation. NASs can be defined in terms of three facts. First, they are implied scenes, which means that they are not linguistically represented in a scene. Instead, NASs can be understood and determined logically. In other words, our minds can perceive NASs without representing them clearly. Second, they rely heavily on simulations of every motion in a MIS, and the combination of those primitive motions configurates this larger scene (MIS). Third, they are indivisible, primitive, or atomic in the sense that they cannot be divided into smaller conceptually meaningful chunks.

Moreover, the viewing arrangement of NASs also happens sequentially, that is, we cannot favor one over the other or manipulate their arrangement. For instance, MIS (d) in scene (1) above, *cut the vegetables into small pieces,* can be segmented into seven sequentially implicit NASs: (i) *The vegetables are placed on a cutting board,* (ii) *they are held*

in one hand, (iii) *the knife is held in another hand,* (iv) *the vegetables are touched by the knife*, (v) *the doer starts cutting the vegetables,* (vi) *the knife moves forward and then backward*, and (vii) *this process is repeated several times.*

These seven scenes are logically construed. They are arranged in such a way that they cannot be violated or tampered with. For instance, the NAS of *'touching the vegetables'* cannot be preceded by '*cutting the vegetables'*, or by *'placing the vegetables on a cutting board'* and the like. Such scenes are considered as a core to understand the higher level of MISs, and then MAS.

The ordinal relationship of the three levels of analysis can schematically be illustrated as shown in Figure 14.
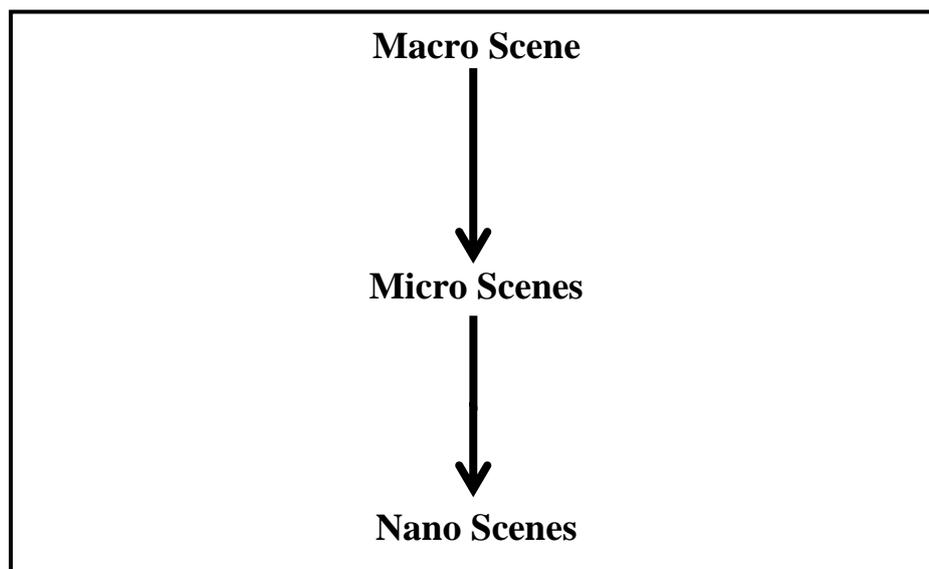
Figure 14: The ordinal relationship of the scene levels of analysis

These three levels of analysis are applied to motion scenes, not static scenes. Therefore, it is important to make a distinction between two types of scenes: summary and sequential.

3.2.2. Summary and Sequential Scanning

According to Langacker (1991a: 22), a scene situation is construalized in two distinct ways: summary and sequential scanning. The distinction between these two ways of conceptualization corresponds to whether the scanned scenes are simultaneous or successive.

On the one hand, summary scanning can be defined as "a holistic conceptualization of a scene in its entirety" (Croft and Cruse, 2004: 53). In summary scanning, entities of a scene are scanned in parallel, giving rise to Gestalt representation of time. These aspects of static scenes are activated as a simultaneously unified whole. On the other hand, the scenes are serially conceived as dynamic aspects in sequential scanning. They are not simultaneously present but include "the successive transformations of one configuration into another" (Langacker 1987: 248).

The distinction between summary and sequential scanning is relevant to the semantic distinction between temporal and atemporal relations. On other words, we use summary scanning to describe 'things'; and sequential scanning to describe 'process' profiled by a verb. For instance, when a verb predicates an action, as in 'The Great Wall collapsed', the scene is scanned sequentially over time. In contrast, when the verb is nominalized, as in 'the collapse of the Great Wall', the scene is conceptualized simultaneously as a whole unit without being scanned through time (Croft and Wood, 2000: 59).

This distinction can be viewed as analogous to looking at a photograph (summary scanning) as compared to watching a film (sequential scanning). In the former, all entities of a static scene are simultaneously

present in a photograph, while the latter includes a sequence of scenes, each different from the next as in a film (Evans and Green, 2006: 535).

However, it is important to mention that the present study depends on the analysis of the sequential scenes. This is because the study believes that the sequential scenes include both static and movable scenes. To illustrate, consider scene (2):

>   2. *The tall player throws the ball in the goal.*

In this example, the sequential elements involve the mover and motion, the causality, and so on. In addition to the sequential elements of this scene, there are different stationary elements such as geometrical structures, containment, size, colour, and etc.

In sum, this sequential scene is like a video, consisting of a group of moving images that are linked by certain relations. However, by stopping at a specific image of the sequence, a single video image is obtained. This is the fact in depicting the sequential scene in our mind. Consequently, the current study develops a model, known as *Sequential Scanning of Viewing Arrangement*, to examine how these sequential scenes are structured.

3.3. Sequential Scanning of Viewing Arrangement

The term viewing arrangement (henceforward VA) is first coined by Langacker in his theory of cognitive grammar. In Langacker (2008: 73)'s terminology, VA refers to the "overall relationship between the 'viewers' and the situation being 'viewed'". That is, the relationship between the observer (the speaker/writer and the hearer/reader) and what they observe. It alludes to the vantage point from which a scene is construed. As illustrated, Langacker's notion of VA is limited to the perspective

system of construalization: a situation in which the interlocutors are together located in the same place, viewing and describing things at the same time (See section 3.3.2.2.).

However, the current study expands Langacker's idea to include the interlocutors' arrangement of a scene, that is, how a scene is arranged and how different actions are joined together to form a wider scene. Indeed, the scene arrangement depends mainly on our visual perception. Specifically, the order of actions in a scene is affected by the way we see that scene, and this is reflected in the language we use: a change in the order of actions leads to a change in meaning.

From the study point of view, VA consists of two domains: schematic and conceptual. The former is highly abstracted, primitive system which is considered as the skeleton or building blocks of any sequential scene. It deals with the partitioning of scenes into static and movable parts. On the other hand, conceptual domain, or what is referred to as construalization, is relatively rich in detail. It is the ability to conceptualize and interpret the same situation in different ways. The conceptual domain is structured by schematic domain.

To illustrate this distinction between schematic and conceptual domains[1], Evans and Green (2006: 185) state that we can lucidly imagine the face of someone when we close our eyes. What we have imagined is known as a mental image or a concept. However, image schemas are schematic in the sense that they are more abstract in nature, and emerging from ongoing embodied sensory-perceptual experience. This means that we cannot

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1 Cognitive linguists use different terms to refer to this distinction, such as structural meaning and content meaning, closed-class and open-class subsystems, or lexical and grammatical subsystems

close our eyes and cerebrate about an image schema in the same way that we can think about the sight of someone's face.

Sequential Scanning of Viewing Arrangement (SSVA for short) is a model developed to treat this distinction. This model deals with dynamic, on-line, or real-time perceptual processes. It suggests two ways of conceptualization to analyze the structure of sequential scenes: scene-building and construalization. These two mechanisms of human mind used to configrate movable scene are claimed to be universal. The SSVA model can be fragmentated as in following diagram:
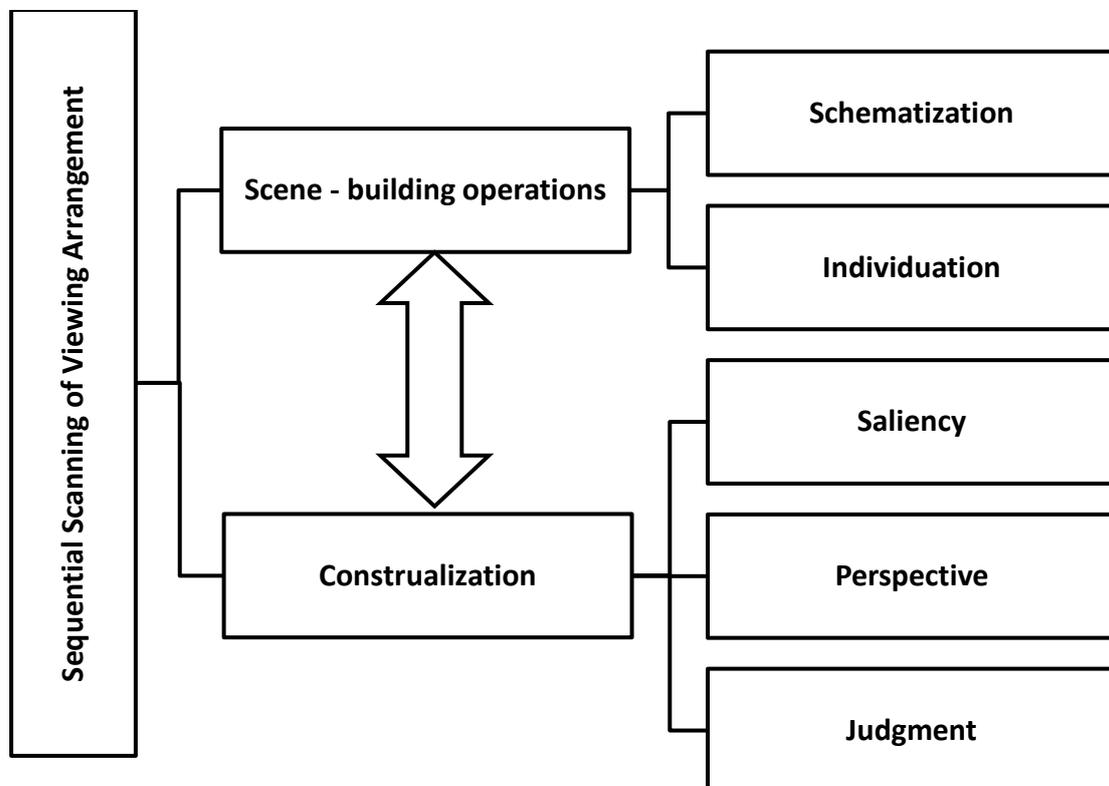
Figure 15: The architecture of the SSVA model

In brief, the model is divided into two systems and each one is, in turn, broken down into subsystems. The two broad systems are scene-building and construalization which are mapped together and work

simultaneously. In the sections that follow, we take a series of excursions into these several systems that address mental structure of scenes.

3.3.1. Scene – building Model

Humans have the ability to build any sequential scene depending on their conceptualization. To construct a building, for instance, we need several basic materials, such as sand, gravel, cement, bricks and others. Similarly, a sequential scene depends on several primitives in the process of its construction, like motion, mover, source and target of motion, space and time of motion, containment and the like.

Reconstructing adequately, the entire scene can take place through the process of scene partition: the dissecting a sequential scene, through dividing it into smaller primitives (i.e., indivisible units). In other words, it is defined as retrieving the elements of a scene into different domains. The process of scene partition happens in two ways of segmentation: schematic and conceptual. The latter deals with the segmentation of the scene objects (mental images) and activity (process), while the former, also known as basic domains, concerns with relating the objects and process of a scene to each other. Figure 16 shows the partition of the following scene:

    3. Bill is playing football in the courtyard.

In this scene, there are four mental images: the player, the process of playing, ball and courtyard. Each image represents a separate space within a group of spaces related to the process of playing. On the opposite side, there are several schematic elements, such as time, space, role, containment and etc., fall within the schematic domain and used to organize the relations between the mental images. The schematic and conceptual domains are then mapped together to form a new domain,

called *unified domain*. In this domain, A, B, C, D stands for the mental images and A', B', C', D' for their counterpart in the schematic domain. The hard arrow refers to the relations between the schematic and conceptual domains.
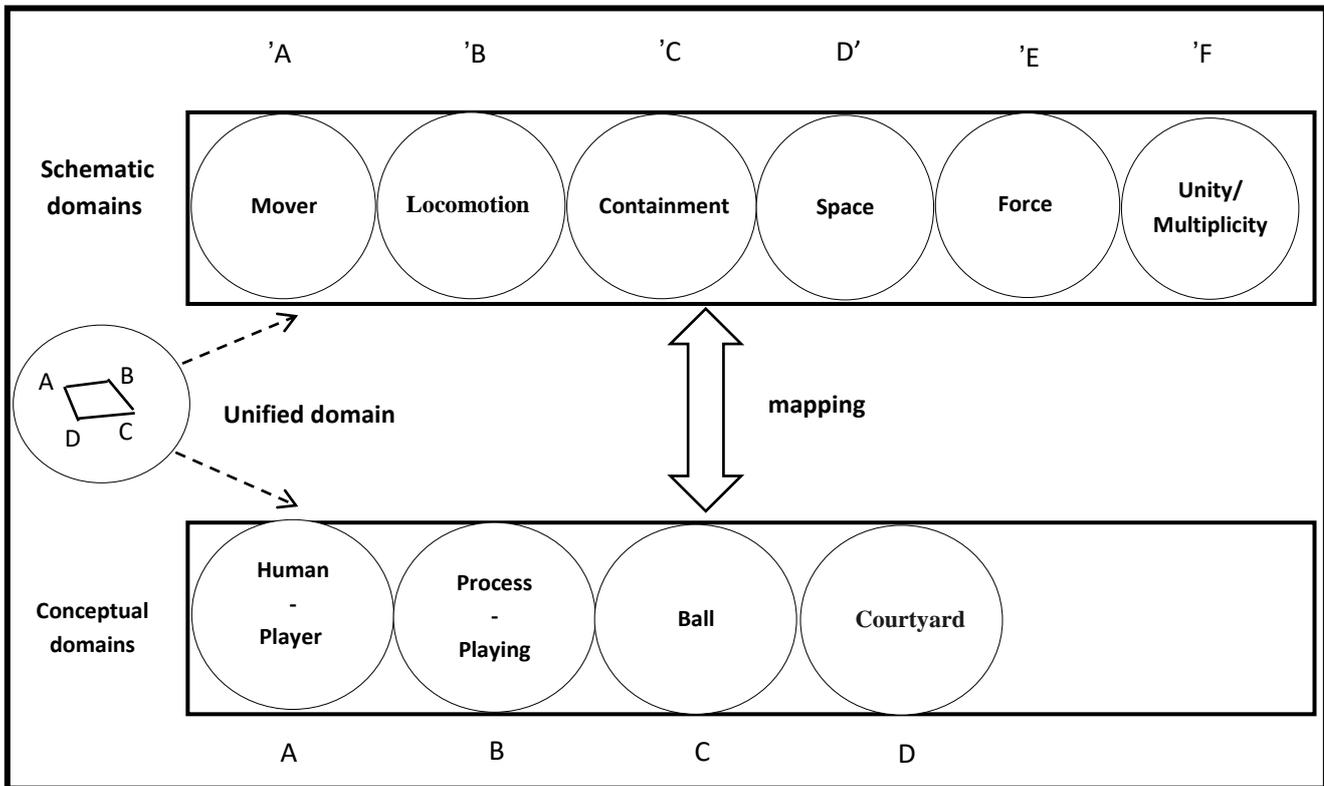
Figure 16: The partition of the scene "*Bill is playing football in the courtyard*"

Forming a unified domain, however, occurs through the process of scene-building. The analysis of scenes in terms of scene-building model is carried out through two subprocesses: schematization and individuation, as elucidated in the succeeding sections.

3.3.1.1. Schematization

Schematization is a system concerned with the conceptualization of the basic scene-structure, i.e., it deals with the sequential and stationary schematic elements of a scene. Croft and Cruse (2004: 63) define schematization as describing "the conceptualization of the topological,

meronomic and geometrical structure of entities and their component parts". It deals with the most primitive components with which we can build any sequential scene. In the aftermath, schematization is divided into two aspects: sequential and stationary schematic structures.

3.3.1.1.1. Sequential Schematic Structures

Humans motivate our bodies and other objects to move, and there are also several entities that can move independently around us. Even entities that are completely stationary can convey a feeling of motion or they play an essential role in affecting a moving entity. In short, motion forms an integral part of our daily lives. Everything in the universe is movable or being moved, starting from galaxies and planets to the smallest object, which is the atom. But how can we conceptualize the motion of these entities and what are the basic elements of motion?

It is a common fact that human mind has the same mechanism to configure motion scenes. That is to say, motion is generally understood as a change of location of an object from one place to another. This change involves a series of sequential schematic structures that deal with the basic dynamic schematic elements of a scene. At the schematic level, these ingredients that come to the fore are mover, motion, schematic transitions, and causality. Such elements are elaborately classified in the following sections.

3.3.1.1.1.1. Mover

Mover is a moving entity that migrates from one place to another. In CL, mover is usually called *figure* (Talmy, 1975) or *trajector* (Langacker, 1987). In the movable scene, we have differentiated between three types of movers: animate, self- animated and inanimate mover

Animate mover is classified either as human as in (4) or animal as in (5). This kind of mover can also be part of human or animal body (e.g., hand, head, eyes, etc.) where the part of the body that moves, not the whole body, as in (6). Animate mover is self-moving or being moved by an external force.

4. *The girl opens the door.*

5. *The cat climbs the wall.*

6. *He pointed his hand at the painting.*

The second type of mover, i.e., *self-animated mover*, is the kind that moves as if it is an animate mover without being a real motivator, inside or outside the scene, causing the motion. This type includes volcanoes, winds, floods, earthquakes and other natural factors and disasters, as in:

7. *The wind blew from the south.*

8. *Snow fell on her head*

9. *The old building has completely collapsed.*

In all these scenes, the mover motivates itself to move due to external factors.

By contrast, *inanimate mover* relates to the mover that lacks consciousness or power of motion. It can be stimulated, explicitly or implicitly, by an animate or self-animate mover as a first trigger (For further details concerning causality see section 3.3.1.1.1.3.).

10. *The driver drives the bus to the station.*

11. *The ship heads towards the island.*

12. *The wind threw the ball away.*

In (10), the driver motivates the bus to move explicitly; while in (11), the stimulator (which may be the ship's captain) is not clearly visible in the scene. In the last scene, the ball is the inanimate mover that is stimulated by the self-animate the wind.

A scene can consist of more than one mover, in the process known as *multiplicity of movers*. This can take place through two ways. First, it happens when both the actor and undergoer of a scene refer to different moving entities, as in (13) and (14). This means that the moving object may not only be the actor of a scene, but it can also be represented as its undergoer. Second, a scene can be composed of multiplex movers when the doer and/or the undergoer involves multiple entities, like in (15)

   13. *The players pass the ball to each other.*

   14. *Alice chased butterflies in the garden.*

   15. *Lumberjacks cut trees.*

In (13), both the players and the ball constitute the movers of that scene. But they form two different kinds of movers: the first includes a group of human movers; while the second mover refers to an inanimate mover motivated by human movers. Example (14) also consists of two movers which are classified as animate movers. One is categorized as human; and the other as multiplex animal movers. The last scene represents multiple human movers, that is, various performers of that scene.

In all three scenes above, the mover is either stimulated to move or stimulator in terms of force. This can be studied through the process of *schematic transitions*.

3.3.1.1.1.2. Schematic Transitions[1]

The term *transition* is extracted from Roger Schank (1975 and 1975)'s traditional theory of *Conceptual Dependency*. Transitions can be defined as primitive actions that are categorized according to their shared elements. That is, the actions are built up from a set of primitives which give the intended meaning of words. Among these primitive acts that form the basic components of action are PTRANS, PROPEL, GRASP, MOVE, MTRANS, and many others (Schank and Abelson, 1977: 12).

Schank's primitive acts deal with both the dynamic and state actions. For instance, ATRANS relates to transfer of abstract relationship (state actions), whereas PTRANS to transfer of physical location of an entity (dynamic actions). However, since the present study concentrates largely on the sequential scenes; it depends only on the two primitives: PROPEL and PTRANS. In other words, all sequential scenes, according to this study, are either PROPEL or PTRANS.

PROPEL occurs when the moving entity is forced, by an external force, to move. It is the "application of physical force of an object" (Schank and Abelson, 1977: 13). Johnson (1987: 45) names such force as 'COMPULSION schema' where something or someone is physically or metaphorically coerced to displace. PROPEL can be found in actions like push, threw, kick, pull, etc., as in:

    16. *The man pushed the cat away.*

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1 The current study replaces the term 'conceptual' to 'schematic' due to the fact that these transitions are highly abstracted and so they form the basic blocks of all dynamic scenes.

The mover in scene (16) is the cat which is forced by the man to move. Hence, the action of 'pushing' is PROPEL that gives rise to PTRANS, i.e., leads to physical motion.

However, PTRANS is the physical transfer of an object from one place into another. It occurs when a moving entity voluntarily moves by themselves without another force compelling them to move. Furthermore, this type of action can be accomplished by animate or self-animated mover. For instance, scene (17) involves a physical transfer of the animate mover from one location (i.e., his house) to another one (the supermarket):

> 17.*Jane went out of his house to buy some things from the supermarket.*

It is an undeniable fact that sequential elements of scenes occur in related clusters or networks. That is, a mover cannot move without a force driving them to move, motion, and also without a causal relationship that regulates this motion. Therefore, the following section concerns with causality of a sequential scene.

3.3.1.1.1.3. Causality

Causality is the most basic construction of a movable scene in any language: no movable scene can be devoid of causation. Traditionally, it is defined as a process of changing state by somebody that causes someone or something else to do an action. From CL viewpoint, Talmy (1985a:130) describes causality in terms of an event structure, as minimally consisting of two events: the causing event and the caused event. Both cause and result are conceived of as subevents in a macro-event. Later on, Talmy (2000: 428) replaces the concept of causation with force dynamic.

From our perspective, however, causality means motivation. It is not only the effect of one entity on another in a clause, as the traditional theory of causality claimed, but the effect of one or more than one entity or scene on another one. In other words, the occurrence of the second scene (the result scene) is wholly dependent on the occurrence of the first scene (i.e., the caused scene). Thus, these causal relations continue between the scenes (micro and nano scenes) in succession until causal chain is completed to form the macro scene.

Causality is, therefore, defined as how someone or something is stimulated by someone else (usually outside the scene) to cause someone else to move from one place to another. That is, a stimulator motivates a causer to cause a causee to do something (the result). On this basis, the study divides the causal elements into five primitive elements: motivator, causer, caused verb, causee and result.

- **Stimulator** is the first initiator or trigger in a scene that should be an animate. It can be *known* when it is clearly determined inside a scene or in previous or subsequent scenes, or *unknown* when it is implicit, but logically determined outside a scene.

- **Causer** is an entity or a scene that is motivated by a stimulator. Sometimes the stimulator also acts as the causer, meaning that the stimulator is the same as the causer, as in (18). It can be hidden, especially in the passive structure. A scene can include multiple causers to achieve a single action. It can also be *inside* or *outside* of a scene.

- **Caused verb** is the action that carries causality and being achieved by the causer.

- **Causee** is the entity that undergoes the action, viz., the one that is caused by the causer.

- **Result** is the consequent of the caused action, and usually comes after caused scene.

These five elements of causality can be summarized as '*M stimulated Y to cause C to do S*'. Consider the following examples:

18. *The driver was driving a car at high speed along a curve before it hit a tree around 10:15 p.m.*

19. *Tom threw the ball into the basket.*

In (18), the stimulator is the driver who stimulates a car to move, which in turn caused an accident when it hit a tree (the causee). However, in (19), Tom is the stimulator and the causer simultaneously, and the ball is the causee on which the action occurred.

The two elements (stimulator and causee) can be accomplished by a single animate entity. This means that such animate entity can both motivate themselves and play the role of the causee on whom the action is executed at the same time, as in (20) and (21). The study calls this kind of causation as *reflective causation*. This type happens when a scene consists of only a single animate entity.

20. *Max killed himself.*

21. *What I did pissed me off.*

Although Max in (20) and the personal pronoun 'I' in (21) play the same role of the stimulator and causee, there is a hidden causer in each scene: a tool used to kill Max in (20), and the thing that pissed me off in (21).

There are two types of causal relations. The first is called a *mono-causative relations* which consists of only one causative animate stimulator and a group of causers and causees, included within different micro or nano scenes (scene 1 above is of this kind, where there is only one stimulator who prepares the meal and a series of causative relations that are triggered by this stimulator). The second type is called *multi-causative relations* that occurs between two or more people in one macro scene, where there is more than one causative animate stimulator. Each stimulator has a specific set of causers and causees that are raised against those related to another stimulator and vice versa.

Causative relations, whether mono or multi, are executed in a sequential order, in the process known as *causative transitionality.* This process occurs when the second scene is triggered or caused by the first one, the third by the second scene and so one.

Motion and causality can obviously merge into one scene, and then the mover both causes and executes motion. For instance, in *Jane went home*, Jane is both the mover that does the motion and the causer of that motion. As motion often constitutes part of causality, it is important to take into account the study of motion and to clarify its types and forms.

3.3.1.1.1.4. Motion

Motion representation is a very complicated system in CL. It is one of the most basic phenomena that plays a vital role in human linguistic conceptualization due to its omnipresent nature. Since it is central to human cognition and experience, motion has attracted a great deal of attention in several cognitive frameworks, currently among them: Fillmore, (1968) Jackendoff (1983b and 1990), Radden (1988), and Talmy (1975, 1985, and 1996).

The term *motion* is defined as ''nothing else than a series of consecutive changes in the relationship of location holding between a given object and its domain.'' (Rudzka-Ostyn, 1988: 517). In other words, it is the sequential change from place A at a given time to place B at certain subsequent time. Fillmore (1968) explains this change in terms of Source-Path-Goal structure. However, these three elements correlate the locational structure of a scene and thus with the stationary schematic constructions (See section 3.3.1.1.2.1.). On the other hand, Talmy (1975) suggests the formula of *Figure-Move-Path-Ground* to study motion. According to him, figure refers to a moving entity; path to the spatial relation between figure and ground; and ground indicates the ending point where the figure arrives at.

The terms *motion* and *movement* are not similarly used. Motion is conceived of as a translocation, that is, it used to describe the physical change (or transfer) of location from source to destination; while movement describes the physical form of motion. As a result, we term the ways in which motion is processed as 'motion', and its formal description as 'movement'.

A. Types of Motion

The study differentiates between two different ways of representing motion: factive and fictive motion. This distinction depends of our perception of a scene. That is, the mover can physically or fictivity moves from one location into another. In this section, the two types of motion are elaborately discussed.

Factive motion takes place when there is physically an actual perceived motion in the sense that the dynamic scene is represented concretely in the real world, as in:

22. The monkey climbed the tree.

In this scene, *the monkey* physically moves, changing its location from the bottom to the top of *the tree*. That is, the motion is physically perceived, presenting a seeable motion of climbing the tree.

However, fictive motion is non-veridical motion which happens when a non-moving entity is fictively moving: no observable physical motion. The notion of 'fictive motion' has attracted a great deal of attention in recent times, under different names, such as *pseudo-motional locatives* (Dowty, 1979); *subjective motion* (Langacker, 1986 and Matsumoto, 1996); *abstract motion* (Langacker, 1987); *meander verbs* (Levin, 1993); *fictive motion* (Talmy, 1996); *virtual motion* (Langacker, 1999c); and *simulated motion* (Matlock, 2004)[1]. To note how different cognitive linguists study the phenomenon of fictive motion, see Abdulkareem and Al-Jashamy (2021).

Fictive motion is used to describe a static physical scene in terms of real situation in the sense that "the displacement is 'mental' rather than real, that is, when reconstructing the scene evoked by the sentence, the hearer mentally traces a given object in a certain direction" (Rojo and Valenzuela, 2003: 243). Static scenes, viz., are conceived and conceptualized as dynamic motion in the real world. For instance,

23. The two streets meet in the city center.

In this scene, the doer of the motion verb *meet* is inanimate, that is, it is stationary and cannot has motion. In other words, according to our experience of the world, the streets cannot move from a specific source to meet in a destination.

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1 We use the term 'fictive' since it is the most common term in the field of CL.

Motion, whether factive or fictive, has certain schematic forms; varying from one motion to another. Thus, the next section is assigned to classify the forms of motion.

B. Forms of Motion

This section is concerned with the physical forms of motion. In fact, with the diversity of actions, the forms of motion vary. Classifying motion on the basis of its form and direction is not an easy matter. Flexibility of moving entities can make thousands of different forms of movements. But it may be possible to group all these movements under the main forms which are the basis for all movements. Therefore, the current study classifies the forms of movement into three main types:

1. **Verticality** concerns with the vertical axis of movement. It is classified according to the upward or downward movements of entities, and it is of two types. First, *up-down*, like drop, sit down, fall, plop, slump, dunk, decrease, sit, etc., can be described by the adverb 'down'. Second, *bottom-up*, such as raise, lift, elevate, increase, carry, stand, etc., can be described by the adverb 'up'.

2. **Horizontality** relates to the horizontal axis of movement. It can be categorized into three types.

   - **Directional movement** occurs when the moving entity moves in a particular direction. It, in turn, is divided into four groups: *Left-right, forward-backward, Converging-Diverging* (e.g., hug and separate)*,* and *arrival-departure* (e.g., go and come).

   - **Non-directional movement** occurs when there is no definite direction of movement. It consists of three types. First, *cyclic*

movement is the movement that has a random, irregular pattern, meaning that it has no specific direction. The verbs that can represent this form of movement is draw, dance, write, play, work, etc. Second, *frictional movement* is the resisting force that results from rubbing one object against another. For instance, vibrate, shake, tremble, quake, flutter, etc. Third, *gathering-spreading movement* includes verbs like spread, gather, distribute, etc. Fourth, *obstructive movement* hinders the progression of the mover like block, clash, collide, etc.

3. **Trajectory** is the curved movement of the object. This form combines vertical and horizontal movement. For example, in the scene "He fell forward", falling is a vertical movement, and forward is considered as horizontally directional one. The result is an arc-like form called *trajectory*.

The four elements of sequential schematic structures (mover, schematic transitions, causality and motion) cannot be isolated from the stationary schematic structures (static categories of a scene). The following section shows the main stationary features associated with a movable scene.

3.3.1.1.2. Stationary Schematic Structures

Unlike sequential structures, stationary schematic structures concern with the static physical structures of entities, such as geometrical structures, containment, and physical characteristics of objects. The study considers these stationary structures as schematic because they constitute the basic primitives of any scene, static or dynamic. As such, it is necessary to say that such structures cannot be separated or neglected from studying the configuration of the dynamic scene.

3.3.1.1.2.1. Geometrical Structural schemas

Geometrical structures of a scene relate to the spatiotemporal analysis of motion scenes. Although we imagine as if there was motion from one place to another, the spatiotemporal geometric structures are not moving structures. Instead, they are stations through which a moving entity passes.

In the sentence *The bird is flying over the house*, for instance, there is a starting point (Source), a continuous set of steps (Path), the destination where the mover reaches. These three geometrical elements are synthesized in the formula 'Source-Path-Goal schema' which is related to the "means of moving from one location to another" (Evans and Green, 2006: 185). The internal relation of Source-Path-Goal schema emerges as a coherent whole. However, the three components may not be explicitly present in a scene, but there is no dynamic scene without being a source, a path and a target for the moving object. Consider the following examples:

> 24. *Eliz climbed [from his bedroom] [up the ladder] [onto the roof].*
> Source   Path   Goal

> 25. *I searched the book [from eight] [all night long] [till midnight].*
> Source   Path   Goal

3.3.1.1.2.2. Containment Schema

Another physical characteristic is the notion of 'containment' which concerns with the spatial boundary of an entity. Containment schema is grounded in the human embodied experience independently of language, from experience of being physically located ourselves within bounded locations like house, room. bed, etc. (Dodge and Lakoff, 2005: 60). Two

rules govern the containment schema. First, the contained entity is either inside or outside the container. Second, if the container is located in another container, the entity is within both, as in:

26.*Jack went to his room and lay on his bed.*

In this scene, there are two containers where Jack is within both: *the room* (macro) and *the bed* (micro) container. Johnson (1987: 21) summaries this idea saying "If I am in bed, and my bed is in my room, then I am in my room".

Another fact of containment schema is that it limits the motion of entity within the container. This schema, as diagrammed in Figure 17, contains three main elements: interior, boundary, and exterior. Interior represents the entity located within boundary which is the area presented in the form of circle. The exterior is the area outside the container.
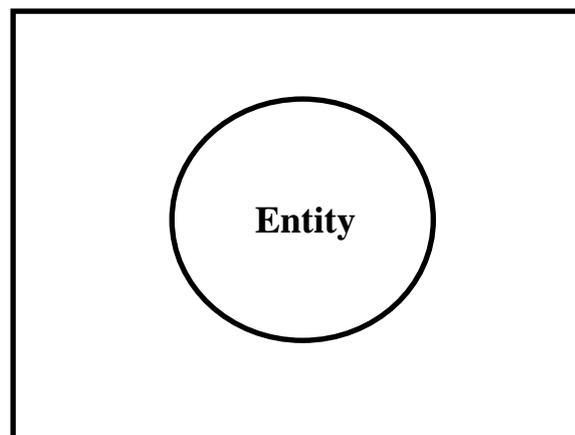
Figure 17: The containment schemas

Linguistically, the notion of contained and container can be described through spatial prepositions which are used to express the location of an entity. On this basis, the researchers classify containment into three main schemas:

A. **In-out/Out-in** is the case where a moving entity spatially leaves or enters a boundary of a container. This schema is related to the distinction between the Langacker's notions of TR and LM in which the former moves from outside of the container boundary to insider it (i.e., LM), or vice versa, as in:

27. *Bill went out of his room.* (In-out)

28. *Jack entered his room.* (Out-in)

B. **Surface** is the case where an entity is in contact with a surface, as in:

29. *The librarian put the book of linguistics on the table.*

C. **Linearity** is the case where an entity is on a straight line.

30. *The train went to the station.*

3.3.1.1.2.3. Physical Characteristics

The last stationary schematic structure deals with the physical features of an entity. Such features are schematic in the sense that they form the essential part, that can be visually perceptible, to the external appearance of any entity in dynamic scenes. The most observable physical properties are:

Color includes the primary colors like black, white, red, yellow, blue, green.

Size also relates to the spatial characteristics of an entity. It concerns with the entity's properties like high-low, wide-narrow, big-small, and flat-nonflat.

State concerns with the three states of matter, liquid, solid or gas.

3.3.1.2. Individuation

Individuation is a system suggested by Talmy as one of the four 'schematic systems' which form part of his theory 'conceptual structuring system' (See 2.6.1.1. and 2.7.2.). It is the process of segmenting entities and actions interacted within a scene on the basis of their representation in space and time often in virtually geometric patterns. Talmy (1988: 194) defines individuation, or what he calls 'structural schematization' as "the category of scene-division properties and that of the 'partitioning' of space or time".

The system of individuation is achieved by virtue of sub-systems: plexity, boundedness and dividedness. Talmy (2000: 58) describes the relationship between these three categories as *a quantity's disposition*.

3.3.1.2.1. Plexity

The term 'plexity' concerns with the segmentation of matter and action into comparable elements. Traditionally, the plexity of matter relates to the grammatical category 'number' with its components 'singular' and 'plural'; whereas the plexity of action to the distinction between the two aspectual categories 'semelfactive' and 'iterative'. However, Talmy (2000: 48) claims that the aspectual terms of an action are not temporally equivalent to 'number'. That is, all aspectual traditional notions do not refer generically to both the spatial and temporal domains of an action.

In terms of quantity, Talmy (Ibid) classifies plexity into two kinds. Uniplex refers to the quantity of matter or action that is conceptualized as a single unit, as in the singular count noun *book*. Multiplex, by contrast refers to the quantity that is conceptualized as a group of units, as with the plural count nouns like *books*. In other words, it is "an original solo referent is, in effect, copied onto various points of space or time" (Talmy,

2000: 48). Some lexical items can intrinsically indicate multiplexity, as in furniture or timber (which stands for trees) for matter and breathe for action. The types of plexity category are illustrated below:

31.	Matter	Action
Uniplex:	*The flower is on the table.*	*Bill coughed (once).*
Multiplex:	*The flowers are on the table.*	*Bill kept coughing.*

The verb 'coughed' represents punctual action, that is, it takes very little time. There is no indication that the action has recurred or extended over a period of time. However, the verb 'kept coughing' is multiplex because it denotes a period of time, indicating its recurrence. Relating to the domain of action, the current study sets five criteria to determine the multiplexity of time:

A. Progression or duration of action in time, as in:

32. The bus is coming.

B. Frequency or repetition of action which is usually expressed by adverbs of frequency, as in:

33. The player kicks the ball twice (or many times, repeatedly, etc.,).

C. Intrinsically repeated actions, that is, repetition is implicit in the meaning of the verb itself, like knock, shake, ring, breathe, etc., (see Talmy 2000: 49), as in:

34. Jane pounded (or knocked) on the door.

35. The bell rang for an hour.

Such actions intrinsically indicate repetition, except if they are affected by linguistic context. That is, if we add the adverb *once* to (34), it will become uniplex.

D. The context in which the action is embedded, an in:

36. The man cut his finger. (uniplex),

37.The man <u>cut the trees.</u>   (multiplex)

In (36), the process of cutting the finger occurs punctually in a single action, and thus it is encoded by uniplex structure. But cutting trees, as in (37), requires time and also the process is repeated with more than one tree. Therefore, it has the multiplex structure.

E. Short actions that do not have the idea of a long time, as find, start, buy, die, lose, break, stop, etc., cannot be multiplex, except if they are affected by the context.

We have noted that the plexity of entities or actions can be ambiguous. It happens when an entity or action is interpreted either as uniplex or multiplex. This process is known as *ambigu-plexity.* This can be shown in the following example:

38.The boy has met his brothers.

This scene is ambiguous in terms of plexity. In other words, it has two interpretations: either he met his brothers together in the same place (uniplex) or he met each one in different places (multiplex).

3.3.1.2.2. Boundedness

Further category within the system of individuation is boundedness which relates to whether a quantity is understood as having inherent boundaries or not. That is, matter or action can be bounded or unbounded. A bounded quantity is conceptualized as intrinsically an individuated unit entity with its own boundary; whereas an unbounded quantity is conceptualized as going on indefinitely with no intrinsic edge (Talmy, 2000: 50). The distinction between bounded and unbounded relates to the difference between count and mass noun in the domain of matter; and perfective and

imperfective verbs[1] in the domain of action (Evans and Green, 2006: 519-20). This distinction is illustrated in example (39).

39.	Matter	Action
Bounded:	*The book is very expensive.*	*Jack has left the toy shop.*
Unbounded:	*The water in the lake is so clear.*	*Jack is leaving the zoo.*

Relating to the domain of space (viz., matter), the entity 'the book' is bounded because it has inherent boundary, and therefore, can be individuated and counted. By contrast, the entity 'the water' has unbounded structure because it is mass noun and has no clear boundary. On the other hand, relating to the domain of time (action), the perfect aspect is regarded as bounded, since the action is completed, while the progressive aspect is incomplete, as shown in Figure 18.

Regarding the boundedness of actions, some verbs have inherent unbounded structures. For instance, the verbs like '*win*' can be conceptualized as having an inherent 'endpoint' or 'goal' and thus bounded; while the unbounded verb '*sleep*' do not. The inherently bounded verbs are compatible with adverbial expressions like *in four minutes*. Therefore, we cannot say '**Lily slept in four minutes*' (Evans and Green, 2006: 520).

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[1]In other terms, the distinction between *telic* and *atelic* verbs which happens when an action is described as complete or incomplete
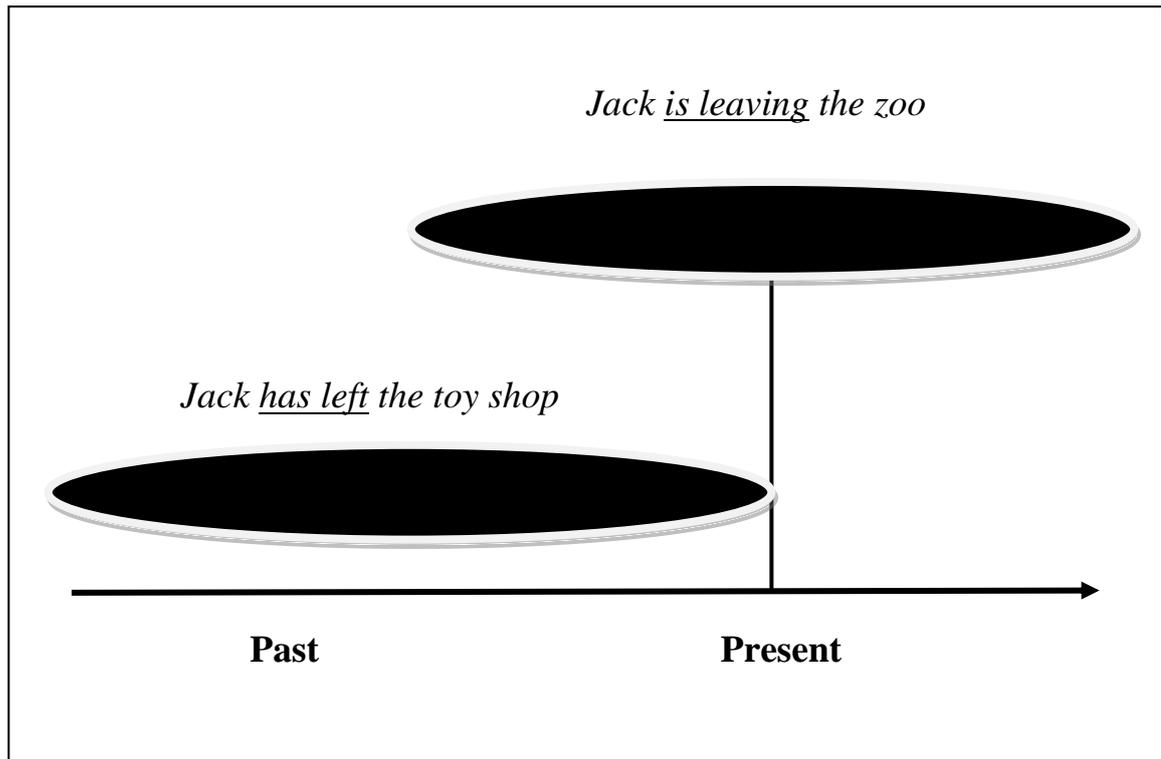
Figure 18: Boundedness in the domain of action

Furthermore, the researchers believe that unbounded verbs have ongoingness, durational structures, whereas bounded verbs have momentary, non-continuous structures. Consider the following examples:

    40. *George is walking to the shop.*

    41. *The mine blew up.*

In (40), the action is durational and thus its boundary is not determined. In (41), by contrast, the action is punctual in the sense we can conceive of its boundary.

Talmy (2000: 51-2) states that it is possible to divide a specific unbounded quantity into bounded portions in the process known as 'bounding', or 'portion excerpting'. For instance, *some of water* (for matter) and sleep for an hour (for action). However, the reverse process is called 'debounding', as in *shrub* which designates a bounded quantity

while the mass noun *shrubbery* interprets this as unbounded (Evans and Green, 2006: 520).

3.3.1.2.3. Dividedness

The last category of individualization is dividedness which concerns with the internal segmentation of a specific quantity. It consists of two values: discrete or continuous. The former relates to the entity's internal breaks or interruptions; while the entity that is continuous does not have breaks in its internal structure. For instance, the words *oil* and *air* are continuous in their structure because they cannot be broken down into discrete entities. However, the words *books* and *furniture* are discrete, since they can be made up of distinct parts (Talmy, 2000: 55).

The current study has adopted a procedure to determine the discrete and continuous matter, depending on Langacker's notion of *profile-base distinction*. This notion means the selection of a part (profile) from the whole (base). In other words, if the entity that forms as a base can be divided into smaller units, it will be classified as discrete entity. For instance, the human body consists of different parts. If we take a part of it, like the hand, we will find that it is also divisible, as it contains the palm, which in turn is divided into fingers, and each one contains a fingernail. But this last element cannot be divided into smaller units, and therefore we consider it continuous and all entities above fingernail (body, hand, and palm) are discrete entities. This can be schematically shown in the following diagram:

Base	Profile
Body → Hand	
Hand → Palm	
Palm → Finger	Discrete
Finger → Fingernail	
Nail → ?	Continuous
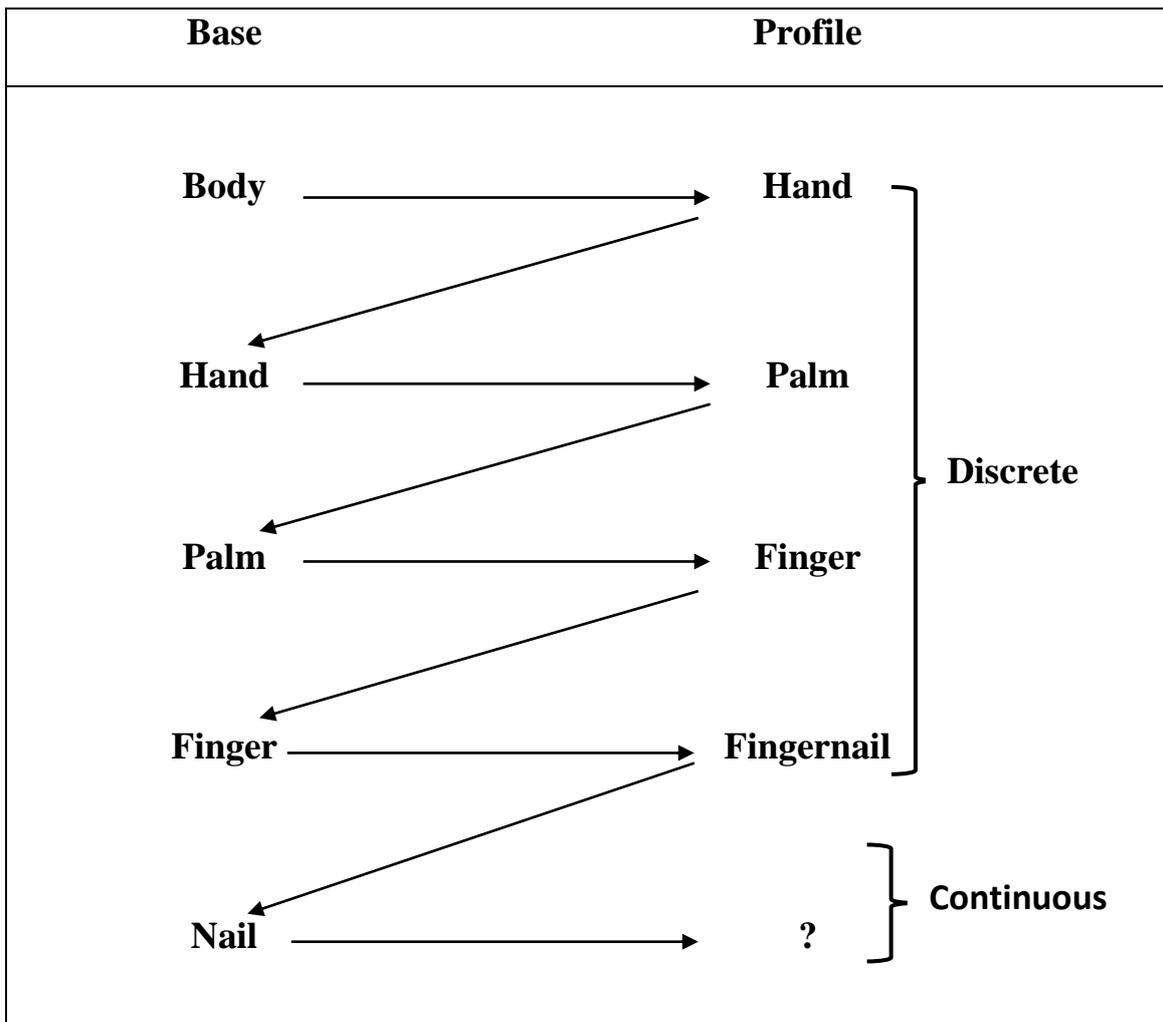
Figure 19: Profile-base procedure to determine the discrete and continuous matter

In the domain of time, the difference between continuous and discrete is similar to the traditional distinction between *durative* and *iterative* (Talmy, 2000: 58). Actions can also have continuous or discrete structures. The action is continuous if it has no interruptions through the process of composition, as the verbs '*sleep', 'coma', 'walk',* etc. by contrast the verbs, like '*breathe', 'coughing'* and '*kept sneezing'*, have breaks in their internal structures.

It can be argued that all elements of a dynamic scene that are mentioned above work together. That is, we cannot separate a motion from a mover; and we cannot classify or describe a motion without reference to its

causative relations: whether it happens on its own or there is an external motive or stimulus. In addition, the dynamic schematic structures cannot be analyzed without referring to the physical schematic properties and the quantity of an entity in the dimensions of space and time. In sum, all components of a dynamic scene are inherently consolidated in their nature. The following diagram summarizes the components of sequential scene-building model.
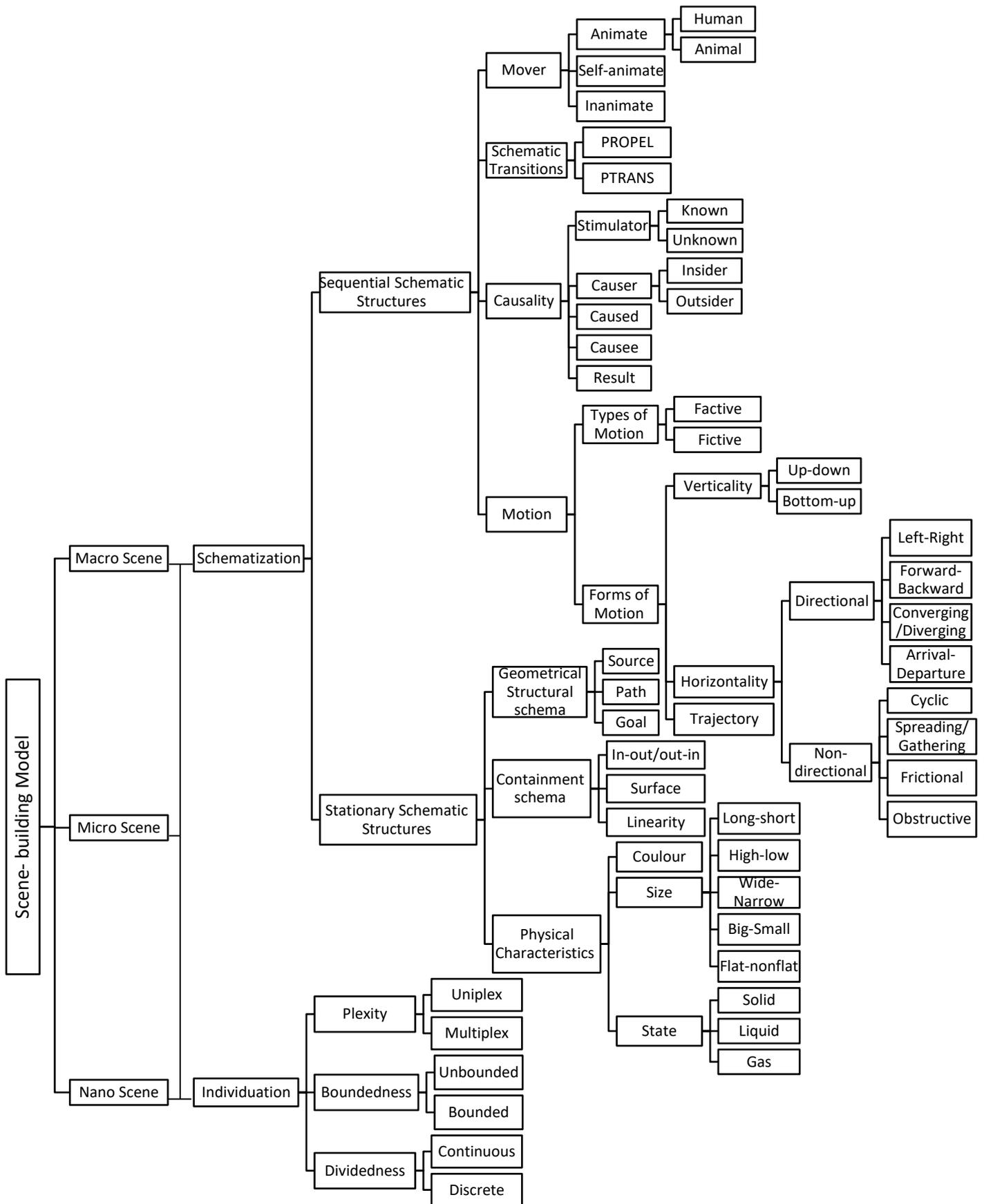
Figure 18: The components of sequential scene-building model

3.3.2. Construalization

Since the schematic primitive structures are regarded as building blocks of any movable scene, they play a vital role in structuring the conceptual system. Construalization, often known as *conceptual system*, is relatively rich in detail. According to SSVA, both schematic and conceptual systems of language work together and cannot be separated, configrating the picture of a scene (See Figure 15). The former is metaphorically considered as the skeleton that is covered by the conceptual system. This means that the conceptual system, unlike schematic system, is variable. From this perspective, construalization is defined as the ability to conceptualize and interpret the same situation in different ways (Langacker 2008: 43).

Beside the schematic domain of language, construalization takes a leading role in the conceptualization of the sequential VA of a scene. After conceptualizing the schematic elements of the movable scene (such as the motion, mover, and the motivation behind the motion), it is important to study how these elements are arranged in a scene. That is, which elements of a scene are highlighted over others (saliency); where we view a scene from (perspective); and how we can construe a scene in relation to another compared one (comparison).

Depending on the three approaches to construalization (Langacker 1987, Talmy 2000, and Croft and Cruse, 2004), the study classifies construal operations into three: saliency, perspective, and judgement (See section 2.7.). With some minor simplifying modifications, these operations will be elaborately examined and classified into various sub-categories.

3.3.2.1. Saliency

One common dimension of construalization is *saliency*, also known as attention, focus or prominence. It concerns with the distribution of attention over scenes and their entities. Attention is a fundamental phenomenon to the human cognitive perception. Langacker (1987: 115) defines attention as "intrinsically associated with the intensity or energy level of cognitive processes, which translates experientially into greater prominence or salience". As such, saliency is the process of selecting the most highlighted properties of a scene and backgrounding others. Selection, thus, can be defined as ignoring some aspects of a scene that are irrelevant to the purpose at hand and foregrounding the most prominent ones (Croft and Wood, 2000: 58). It is interesting to state that the construal operation of salience is somewhat comparable to relevance theory.

Four aspects fall under the domain of saliency. They are onstage vs. offstage, figure-ground alignment, zooming and grammatical saliency. In the remainder of this section, the study will shed light on these aspects of attention.

3.3.2.1.1. Onstage Vs. Offstage

The notions of onstage and offstage refer to the idea that some parts of a scene can be visible to hearers or readers (onstage), or be suppressed and implicit (offstage). Consider the following scene:

> 42. *The man stepped up the top of the bridge, and then climbed the fence and jumped to the ground by suicide.*

The writer and viewers of this scene do not pay much attention to other people, cars, the type of fence, or to other surrounding irrelevant parts,

even though they are logically aware. However, the attention is focused on what is onstage, such as the man, the bridge, the fence, and the ground.

The distinction between onstage and offstage is described by Langacker (2008: 77) in terms of subjectivity and objectivity which concern with the relationship between the viewer and that which is viewed. For instance, when someone is watching a play, their attention is completely focused on what is onstage, more specifically on the actor presently speaking. Other irrelevant parts of the play are offstage. Although the other people in the audience are not in the focus of attention, they can also be profiled as part of a scene.

3.3.2.1.2. Figure-Ground Alignment

A further type of selection as a construal operation is figure-ground alignment which is derived from Gestalt psychology as one of the principles of perception. Later, this concept is applied in CL, in particular by Fillmore and Talmy. A figure is an entity that includes the prominent part of a scene due its distinctive feature. On the other hand, ground refers to a part of a scene that has less dominant shape (Evans, 2007: 79). For instance, printed black words are seen as the figure and the white sheet as the ground. Talmy (2000: 183) identifies a number of criteria for determining figure and ground. These are shown in Table 2.

Table 2: The criteria of figure-ground alignment

Figure	Ground
Has unknown spatial properties	Has known spatial properties
More movable	more stationary
Smaller	Larger
Geometrically simpler	Geometrically more complex
More recently in awareness	Earlier on the scene/in memory
Of greater concern/relevance	Of lesser concern/relevance
Less immediately perceivable	More immediately perceivable
More prominent	More backgrounded
More dependent	More independent

Humans tend to focus their attention on the movable aspects of a scene. In other words, movable participants involved in a sequential scene are more prominent than those which are somewhat stationary. Consider the following scene:

43. *The cat jumped on the tree.*

In this scene, we give more attention to the cat rather than the tree. This is because our background knowledge tells us that the cat is more likely than the tree to move. Thus, the cat is considered as the figure and the remainder of the scene as the ground. In relation to VA perspective, if we change figure (the cat) to ground (the tree), the scene would be odd.

Furthermore, spatial representation in language plays a role in distinguishing between figure and ground. Evans and Green (2006: 69) refer to three parameters by which a spatial scene is configured: figure-ground segregation; the relative proximity of the figure with respect to the ground; and the position of the figure with respect to the ground.

3.3.2.1.3. Zooming

Zooming is the process of transfer from the outer periphery to the point of focus, i.e., narrowing the scope, like a funnel. Langacker calls this fundamental part of the knowledge network *the scope* of a lexical concept. For instance, imagine if someone tells another one about the location of money in the kitchen, which consists of a counter, which has a cabinet underneath it, which includes shelves, and which consists of a meat grinder on the top shelf. This scene can be expressed as follows (Extracted from Croft and Cruse, 2004: 50):

> 44. *The money is in the kitchen, under the counter, in the left-hand cabinet, on the top shelf, behind the meat grinder.*

This scene makes reference to the scope of attention that has to do with a combination of spatial relations, designated by the prepositions *in, under, on*, and *behind*. Each locative expression profiles an object in the scope specified by the preceding locative expression. That is, we use the locative expression in the kitchen to narrow the scope to the meat grinder.

In scene (44), we start with the most distant scope of attention for the profiled object (i.e., the money) and then we narrow the scope, zooming it successively in the way that the profiled object can be found. In other words, the optimal lexical concept is the meat grinder which carries the most scope of attention and the kitchen, the most distant scope (Kövecses, 2006: 230).

3.3.2.1.4. Grammatical Saliency

The grammatical organization is also fundamental to saliency. A phrase can grammatically take a particular position in order to become more prominent in the scene. One of the ways to study the distribution of attention from a grammatical perspective is what is traditionally called *information packaging constructions* (Quirk et al, 1985) or *information structures*. This structure provides a wide range of formal options to express the same information content in different ways. It relates to the organization of new and old information in a scene to be fit with the hearer/reader's information. The study picks out two constructions to achieve this kind of prominence: Positioning and passivation.

Positioning concerns with the linear organization of syntactic components. It can be divided into *preposition* and *postposition*. The former is the fronting of a grammatical element into initial position, whereas postposition relates to the postposing of an item to the right of its basic position at the end of the sentence (Quirk et al., 1985: 1377, 1383). Consider the following scenes:

45. *Bill kicks <u>the white ball</u>.*

46. *<u>The white ball</u> Bill kicks.*

The difference between (45) and (46) occurs in the entity that is fronted and the one postponed. In (45), Bill holds the most focus of attention because he acts as the agent that is fronted. However, the white ball is the prominent entity in (46), since it is fronted, preceding the agent. In sum, the position of an element in the sentence determines its importance.

A further way in which the speaker/writer draws the hearer/reader's attention to a given entity is passivation. It concerns with the subject-

object shifting. In other words, it violates English word order (SVO). The scene producer has a number of grammatical choices about the verb forms. Among them are *active* and *passive structure*. The use of active construction denotes that the actor of the action is under our attention while using passive construction indicates that the object holds attention over the agent. That is, this diversity of grammatical structures is used to serve a specific purpose by giving more emphasis to a certain entity. Consider the following two scenes:

47. *George killed the dog.*

48. *The dog was killed by George.*

Scenes (47) and (48) differ in the grammatical construction used to describe the scene. In the active construction, the focus is on the dynamic actor of the scene (i.e., Bill), while the dog in (48) is on the undergoer.

3.3.2.2. Perspective

A further operation of construalization is perspective which plays an important role in the relationship between language and cognition. It is the specific point from which a given entity or scene is viewed[1] (Langacker, 2008:73). In other words, different conceptualizers conceive the same scene by using different grammatical structures. This means that perspective depends on the spatial and temporal imagery from which a situation is conceptualized. However, perspective cannot only be realized through spatial situations. We can conceptualize the world based on other domains, such as knowledge and belief as well as our spatiotemporal

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1 The term 'viewers' refer to the speaker/writer and hearer/reader.

location. Croft and Cruse (2004: 58-59) state that perspective, or what they called it as 'situatedness', goes back to Heidegger's notion of 'being-in-the-world' which refers to the idea that we are already in a situation and construing it from specific perspective.

The construal operations relative to perspective contain three processes, they are viewpoint, deixis, and subjectivity/objectivity. The following sub-sections are assigned to explain these processes.

3.3.2.2.1. Viewpoint

The term *viewpoint* is suggested by Langacker to refer to the conceptualization of the same scene in different ways. The viewpoint can be expressed through two types: vantage point and orientation, which give rise to foreground/background relations. Vantage point is the point of view from which a situation is conceptualized depending on particular spatial or temporal position. Since the study is concerned with the analysis of movable scenes, the focus will be on the construal vantage point of motion. It is obvious that the construal perspective changes whenever the mover moves.

The vantage point is illustrated with horizontally spatial prepositions such as *in front of/behind* or *across*. The choice between one of these prepositions depends on where the conceptualizer is located (Croft and Wood, 2000: 64). Verbs such as *come inside* and *go outside* can also be used to indicate this vantage point. Consider the following examples:

49. *The car is in front of the tree.*

50. *The car is behind the tree.*

Although these two sentences describe the same scene, the way of the depiction is different. Scene (49) is said by the observer who actually

looks at the car that stands between them and the tree. However, imagine if the observer goes to the other side of the tree, their viewpoint would be different, describing it as (50). Notice that there is no change in the places of car and tree. The only change that happens is in the conceptualizer's vantage point. This can be diagrammed in Figure 21:
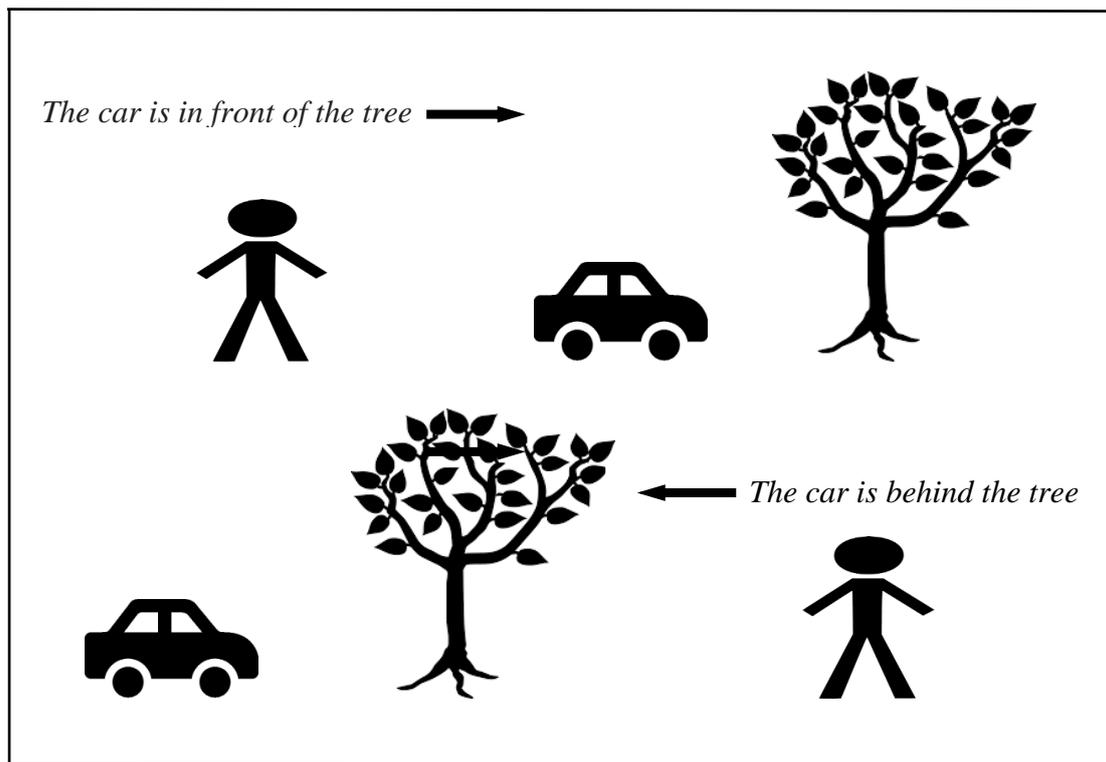
Figure 21: The conceptualizer's vantage point

Therefore, the feature of 'being behind' depends on "the conceptualizer's location within the overall spatial setting" (Croft and Cruse, 2004: 58). Furthermore, the speaker/writer must coordinate their viewpoint with that of the hearer/reader.

Orientation occurs when the situation is vertically viewed by the observer. It is illustrated with the prepositions like *above* and *below*. However, "[a]lternative construals for orientation are much rarer, since we rarely go around standing on our heads or hanging from our feet" (Ibid: 59), for instance,

51.The plane is above the city.

52.The city is below the plane.

3.3.2.2.2. Deixis

Deixis is one of the basic linguistic phenomena that deals with the connection of language with its spatiotemporal and personal context. It is traditionally distinguished into three types, including time, place and person deixis. Deixis plays a central role in the construalization of a scene. It concerns with the positioning of participants in a scene. It is not only certain words (such as now/then, here/there, or I/you/ etc.,) that can function as deictic expressions, tenses, however, can also function deictically (Kövecses, 2006: 237). For instance, when someone says '*I am working*', the conceptualizer will realize that this action occurs at the moment of speaking, and when they say that '*I worked*', the conceptualizer will know that the action happens before the time of speaking, and so on.

The construalization of a scene does not only depend on who says something in specific time or space. It also includes the conceptualizers' shared knowledge, or what is known as *common or epistemic ground*. Such common ground[1] provides us with an epistemic perspective situating the participants in a given scene (Croft and Wood, 2000: 64). The most common example of epistemic perspective is the use of the definite and indefinite articles. Look at the following two scenes taken from Croft and Cruse (2004: 61):

53.Did you see a hedgehog?

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1 The notion of common ground is first coined by Clark who defines the shared knowledge between two interlocutors as "the sum of their mutual, common or joint knowledge, beliefs and suppositions" (1996:93).

54.Did you see the hedgehog?

They both refer to different construals of the situation. In (53), the *hedgehog* is construed as unknown to the hearer, whilst scene (54) is as part of their common ground.

In sum, perspectival construals result from our being in the world in a specific location. That is, we are in a given spatial position in the world (vantage point) and in a vertical orientation. As participants, we are located depending on particular spatiotemporal relations (deixis), or on our shared knowledge about the world (epistemic perspective).

3.3.2.3. Judgement and Comparison

Judgement is a philosophical concept suggested by Kant, who considered it as a basic cognitive faculty. Croft and Wood (2000: 64) link this concept to the process of comparison by which we can judge the similarity between two entities or situations. Judgement can be distinguished through two processes: framing and metaphor.

3.3.2.3.1. Framing

Fillmore proposes the term 'framing, which is also called 'domain' or 'base' by Langacker and categorization by Lakoff and many other cognitive linguists (see section 2.6.2.1. and 2.6.2.2.), to refer to the categarization of entities and scenes in order to campare it to prior experience. Thus, it is a construal operation based on comparison (Langacker 1987: 103–5). The fundemental notion of framing is that linguistic unit cannot be understood without being shared knowledge related to that unit. This means that concepts are not separated units, instead they are part of a wider related structure.

Since the study focuses only on the dynamic scenes, the following scene illustrates the framing of that kind of scene:

> 55. *The man wiped his hand over the boy's head. The boy remembered his father who used to do the same when he slept.*

Here, two different scenes are categorized within the same domain or frame. That is, the action of 'wiping over the boy's head', that the man performs, is compared to what his father used to do.

3.3.2.3.2. Metaphor

The final construal operation that involves comparison is metaphor. From CL point of view, metaphor is a conceptual system that is based on the comparison of two categories. In their CMT, Lakoff and Johnson (1980) differentiate between two conceptual domains: source domain and target domain. The former relates to the literal meaning from which we draw metaphorical expressions, while the latter concerns with the information we try to understand. Understanding the source domain in terms of the target domain involves a set of corresponded elements, joined by a process known as *mapping* (Lakoff, 2006: 185). For instance, the phrase *to waste time* consists of comparison between two domains: the target domain, represented by TIME; and the source domain, indicated by MONEY. That is, time is compared with money (Croft and Cruse, 2004: 55). In terms of construalization, metaphor provides us two alternative construals to the same scene.

Figure 22 summarizes the model of construalization and the main construal operations suggested in the current study.
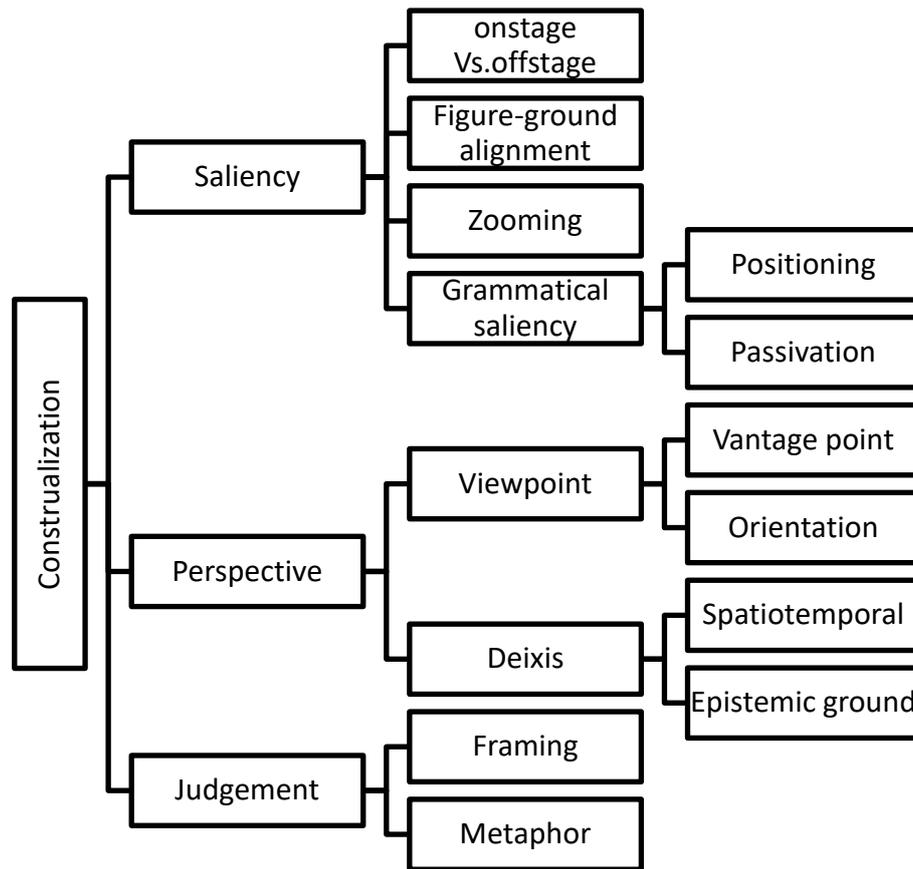
Figure 22: The model of construalization

It is important to point out that the schematic scene-building and construalization are two different, but overlapped, domains. The former is analogically treated as the skeleton that is covered by the latter: the body cannot have a skeleton without flesh covering it and vice versa. Accordingly, these two systems form the basic part of the scene analysis.

CHAPTER FOUR

Data Selection, Description and Analysis

4.1. Introduction

The preceding chapters have involved a great deal of theoretical explanation. However, this chapter is concerned with the application of the SSVA model that is developed in Chapter Three. The first part of this chapter outlines the data selected in this study, giving a summary of Dan Brown's *The Da Vinci Code*. The second part deals with the analysis of the selected scenes depending on the model developed in this study. It also involves a section interested in hypotheses verification.

4.2. Data

4.2.1. Data Selection and Description

The data of the study involve a group of dynamic scenes, selected from Dan Brown's *The Da Vinci Code*, in terms of the developed model. The novel is selected as a research field because of the significant role it plays in the contemporary literature. It is a worldwide bestseller that has outsold over 80 million copies and has been translated into 44 languages (Heller, 2020).

The study depends on four criteria in choosing the scenes that are selected from the novel:

1. To prepare the data for analysis, the process of data selection starts with reading the whole novel accurately and thoroughly, and then isolating the dynamic scenes that have sequential VA. The

researchers specify about 125 scenes of this kind, divided on 105 chapters.

2. The researchers take into consideration the notion that the selected scenes are categorized according to the four features of scene boundary (time, place, the main participants, and theme), which are discussed in Chapter Three. A scene with these characteristics is called macro scene.

3. Due to time constraints, the study randomly selects three scenes of this type (as shown in Appendices) to be analyzed according to the SSVA model. Each MAS has several MISs and NASs, analyzed in terms of two processes: scene-building and construalization.

4. In the process of selecting these three scenes, the researchers take into account the size and the different processes and components they involve.

4.2.2. The Da Vinci Code Summary

The novel of *The Da Vinci Code* is written by Dan Brown in 2003. The story starts with the murder of Jacques Saunière, the Louvre museum's curator, who knows where the Holy Grail is. The man is viciously shot by an albino Catholic monk named Silas who looks for the Holy stone. Before the curator dies, he leaves a sign to lead one man to the truth. The police asked for help a man named Langdon, a professor of symbology at Harvard University, to decode the message Saunière left during the final minutes of his life.

Sophie Neveu, Saunière's grand-daughter who also works as a cryptologist with the police, teams up with Langdon to solve the mystery of *The Da Vinci Code*. According to the police, Saunière was in his office when he was attacked. He ran to the gallery and triggered the

alarm by tearing out the painting from the wall. The iron gate blocked the entrance to the gallery, and the killer shot the curator through it. Saunier crawled a great distance and died. The police found him naked on his back, arms and legs outstretched.

Sophie secretly explains to Langdon that Bezu Fache, the police captain, believes Langdon is the killer because the last line in Saunière's message, which was addressed to Sophie, said "P.S. Find Robert Langdon", Fache erased before Langdon arrived. However, "P.S." refers to the nickname given by Saunière to his grand-daughter, "Princess Sophie". Sophie realizes that her grandfather intended Langdon to decipher the code.

While Langdon decodes the second and third lines in Saunière's letter: "Leonardo Da Vinci! The Mona Lisa!", Sophie returns to the painting to look for another clue. Sophie finds a key Saunière had hidden behind a da Vinci painting. The two escape the Louvre and drive toward the Swiss bank. When they enter the bank, an unnamed security guard realizes that they are fugitives and calls the police, but André Vernet, the bank manager and Saunière's friend, recognizes Sophie and helps her. Sophie and Langdon find Saunière's deposit box and open it using the number left near his body. Inside the deposit box, they discover a box consisting of the keystone: a cryptex, a cylindrical, hand-held vault with five concentric, rotating dials labeled with letters.

Langdon decides to take the keystone to the scientist Leigh Teabing, who is an expert on the Holy Grail, to ask for his help opening the box. While Teabing explains the history of the Grail, Silas sneaks into the mansion and hits Langdon over the head. Teabing and Sophie are at gunpoint. Meanwhile, Teabing, who is crippled, attacks Silas with one

of his crutches. Then, Sophie kicks and ties him up. When they hear the police approaching the mansion, they all flee in Teabing's car. Sophie, Langdon, Silas, Teabing, and his butler Rémy Jean, escape and board Teabing's private jet to England. Opening the wooden box, they discover a smaller cryptex inside it, together with another riddle stating that one needs to find a tomb of a knight buried in London by the Pope. In a clever maneuver, Teabing manages to push his passengers away from the jet and hid them in the parked limousine before police arrive to search the plane.

Then, Sophie, Langdon and Teabing visit the Temple Church in London, the burial site of knights, and Rémy stays in the car with Silas. As they are in the church, Silas unties and frees. Silas enters the church to get the keystone, but Langdon threatens to break it. Rémy steps in and takes Teabing hostage. Finally, Langdon gives up the keystone to save Teabing's life.

The teacher orders Silas to let Rémy bring him the keystone. The teacher meets Rémy in the park and murders him. Then, he calls the police to arrest Silas. As Silas attempts to escape, the police shoot him. Sophie and Langdon discover that Sir Isaac Newton, who was buried in Westminster Abbey by Alexander Pope, is the knight they are looking for. The teacher invites them to the garden with a note saying that he is Teabing. There, they reveal that Teabing himself is the teacher for whom Silas is working.

By the time, Sophie and Langdon go to the Newton's tomb and realize that Teabing is already there. He threatens to shoot them unless they solve the second cryptex's password. Langdon infers that the password is 'apple'. Langdon secretly opens it and takes out its contents before

throwing the empty cryptex in the air. As he tries to grab the keystone and prevents it from being destroyed, Teabing's gun falls to the floor. Meanwhile, Captain Fache bursts the room and arrests Teabing.

The final message found inside the keystone leads Langdon and Sophie to Scotland and the Rosslyn Chapel. There, Sophie discovers that the woman who works as the guardian of Rosslyn Chapel, Marie Chauvel Saint Clair, is her grandmother (Saunière's wife), and the young man who lives there is her brother. Finally, she found her family. During the reunion, she knows that her family is descendants of Jesus and Mary Magdalene.

4.3. The Analysis of Scene One

As previously stated, the cognitive boundary of a scene can be realized through four features, they are time, place, the main participant(s), and theme. Any change in one of these elements means that we have moved to another scene. The writer, in Scene One, maintains the unity of these four categories. In other words, the time of an action is at 10:46 P.M. The location of the scene is set in the city of Paris, exactly in Louvre Museum.

The scene revolves around two participants: the curator Jacques Saunière and his albino attacker. Because he is pursued, the curator grabs a Caravaggio painting from the wall to trigger the automated alarm and prison himself inside the Grand Gallery. As a result, the iron gate is dropped around the suite. Beyond the iron bars, the albino asks him to reveal where 'the ancient secret' is. The curator at first pretends that he does not know, but eventually he is at gunpoint. However, Saunière has lied about the secret that he has carefully rehearsed many times. His attacker replies that the other three sénéchaux had said the same lie. Then he shoots Saunière in the stomach and leaves him to die. The curator

realizes that his three brethren are dead, and he has only a few minutes to live. Therefore, he must pass on his important secret.

By way of analysis, this scene undergoes two processes: scene-building model and construalization. In these two processes, the scene is partitioned to view how the dynamic scenes, involved in this scene, are built and conceptualized.

4.3.1.Scene-building Model of Scene One

In order to build a scene, it is important to begin with analyzing the abstract conceptual representations (i.e., image schema) which are the building block of any scene. The suggested model of scene-building model differentiates between two main schematic categories: schematization and individuation. To analyze these two categories, it is important to go through the three essential levels of analysis: *macro scene*, *micro scenes*, and *nano scene*. These three important levels should be given the attention prior to embarking on the task of analysis. Consequently, the following three sections are assigned to analyze the selected scene according to such division.

4.3.1.1. Macro Scene

As readers, we can understand the whole scene through its major actions and entities, without reference to its details. That is, the general idea of Scene One can be summarized through two major parts:

1. *Because he was chased by the albino, the curator staggered through the vaulted archway of the museum's Grand Gallery, and lunged for the nearest painting, a Caravaggio to trigger the automated alarm. As a result of the alarm ringing, a thundering*

iron gate fell nearby, blocking the entrance led to the suite, and therefore, the parquet floor shook.

2. *The albino aimed the barrel through the bars at the curator's head, and the bullet released to lodge in his stomach, framing the hole by a small circle of blood.*

The strategy of *causative transitionality* plays a role in determining these two fundamental parts. These two major parts as well as their subscenes are arranged as causal chains. The type of causality used in this scene is *multi-causative relations*, since it is done by two animate stimulators, the curator and the albino, who are the responsible for all the actions happened in that MAS.

In the first part, although the curator is considered as the stimulator that causes the actions of staggering, lunging, ringing, falling, blocking, and shaking, he was pursued, and therefore motivated, by the albino. The causality has shafted when the curator grabs a Caravaggio painting. In this sub-scene, the causer becomes the curator and the painting is the causee. The chain continues when the painting comes to be the causer when it triggers the automated alarm to ring which is, in turn, responsible for falling of the iron gate. The causee iron gate has shifted to be causer when it stimulates the floor to shake (see Table 3 and Figure 30 below).

In the second part, the albino is the first stimulator, who aims the barrel, beyond the iron bars, at the curator's head. Thus, the albino is conceptualized coincidentally as the stimulator and the causer of this part of the scene, while the latter (the curator's head) as the causee. However, the entity 'the barrel' has causally shifted from the causee to become the causer in the next action. While the barrel is the causer, the bullet is treated as the causee to be lodged in the curator's stomach. Finally, the

bullet causes the hole in the curator's body to be framed by a small circle of blood. These *causal chains* and changes have been represented in the following table:

Table 3: The causative transitionality of Scene One

Causer	Causee	Caused	Result
The albino ⟶ **(Stimulator)** ↓	the curator	staggered	lunged for the nearest painting
The curator ⟶ ↓	the painting	lunged	triggering the automated alarm
The painting ⟶ ↓	the automated alarm	To ring	Falling of the iron gate
The automated alarm ⟶ ↓	the iron gate	fell	the blocking of the entrance
The iron gate ⟶	the floor	shook	Shaking of the floor
the albino ⟶ **(Stimulator)** ↓	the barrel	aimed	releasing the bullet
the barrel ⟶ ↓	the bullet	released	lodging in the curator's stomach
the bullet ⟶	the hole	framed	a small circle of blood

It is obvious that there is a causative transitionality from one scene into another. That is, each scene is a result of another scene, forming a causal chain. This causative chain is headed by an animate stimulator. These general actions play a role in drawing a scene as a whole (i.e., MAS).

In terms of scene-building mechanism of schematization, the first part of this MAS is composed of two fundamental dynamic scenes: the curator's staggering and lunging, and falling the iron gate; whereas the second part consists of the motion of firing the bullet toward the curator. The first

action of part one is categorized as PROPEL which leads to the action of PTRANS. That is, the mover (i.e., the curator) is motivated to move from the archway to Gallery: from the source to the goal. This factive motion of staggering and lunging is conceptualized as horizontally forward direction. The vaulted archway and the Grand Gallery are represented as the container to the contained the curator. In other words, they are the LM in which the TR moves from P^1 to P^2.

In the second action of part one, the mover iron gate is triggered by the automated alarm to fall. Therefore, it is also assorted as PROPEL that leads to PTRANS. The iron gate is physically transferred from the roof of the entrance to the floor of the Gallery. This transfer has a factive up-down motion in the form of vertical axis. In this scene, the floor is the LM or surface on which the TR iron gate falls on. Put it differently, the floor is the container including the contained iron gate.

The second part of this MAS is regarded as PROPEL in which the bullet is forced to move from the barrel to the curator's head. Although the mover physically budges from the source to the goal, this motion is affected by an external force. This actual motion is horizontally represented as forward direction. Physically speaking, the container the barrel is the LM from which the TR the bullet releases. Therefore, the TR goes out from inside to outside of the LM.

It is important to highlight that these two parts form the major picture of Scene One as a whole. They are arranged sequentially in the sense that the transfer among these actions takes place in sequence. In other words, it will be messy and incomprehensible if their schematic order is rearranged. The sequential arrangement of the two parts is mapped as in the following schematic diagram:
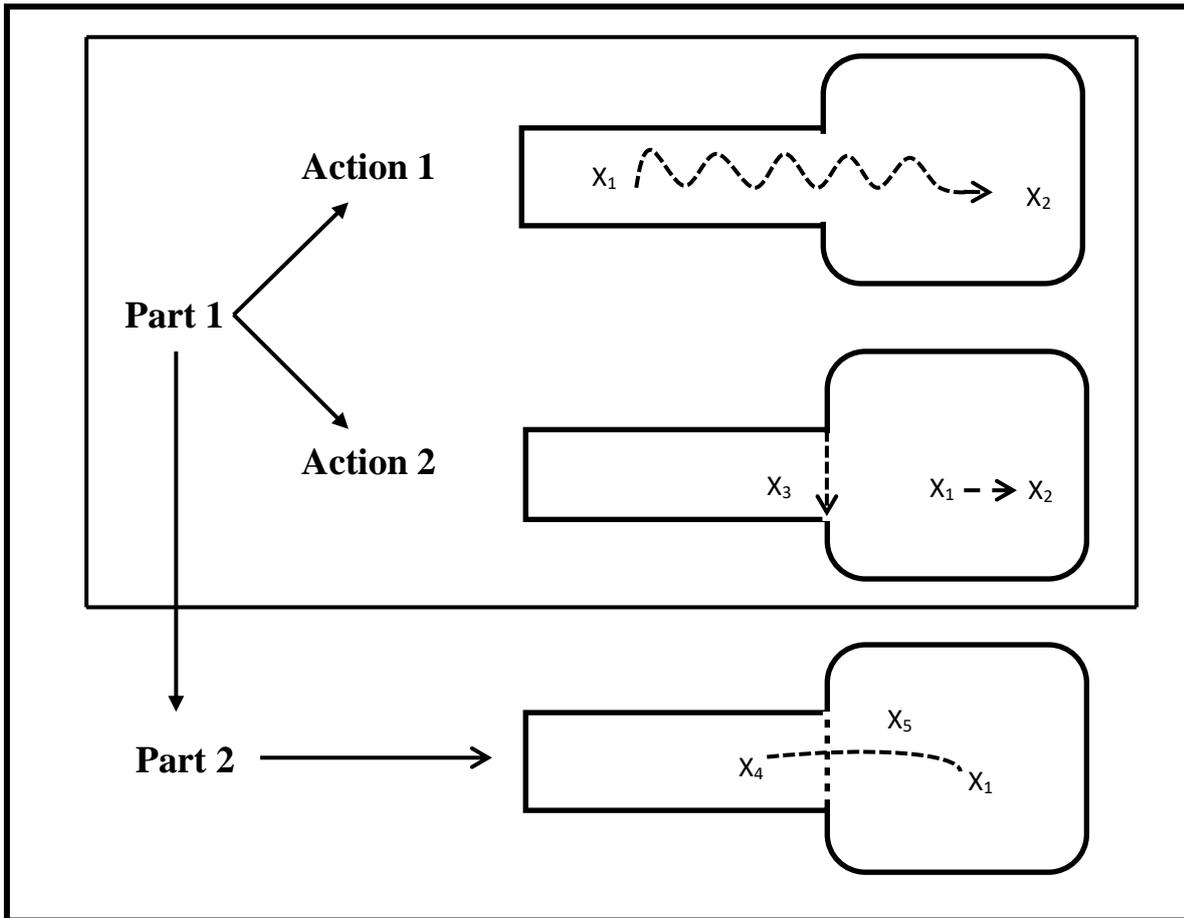
Figure 23: The sequential motions of Scene One

The diagram shows the process of mapping of the two parts. Rectangle and square symbolize both the archway and the Grand Gallery. In the first part, action (1) consists of four elements: the curator, the painting, the archway and the Grand Gallery. The curator (X_1) moves indirectly from the archway toward the painting (X_2) in the Grand Gallery. In action (2) of part one, another element is added which is iron gate. While X_1 grabs X_2 inside the Grand Gallery, X_3 which indicates iron gate coincidently blocks the entrance, moving from the roof to the floor. In the second part, the entity X_4 which refers to the albino is onstage and X_2 and X_3 are offstage. Behind X_3, X_4 releases the bullet (X_5) toward X_1.

In Scene One, different locations have been alluded to, such as Paris, Louvre Museum, archway and the Grand Gallery. These are conceptualized as the containment of Scene One on different levels. This scene consists of three levels of containment: super macro, macro and micro container. Within these levels, there are various contained entities: the curator, the painting, iron gate, the albino, the barrel and the bullet. The container and contained entities are schematized in Figure 24.
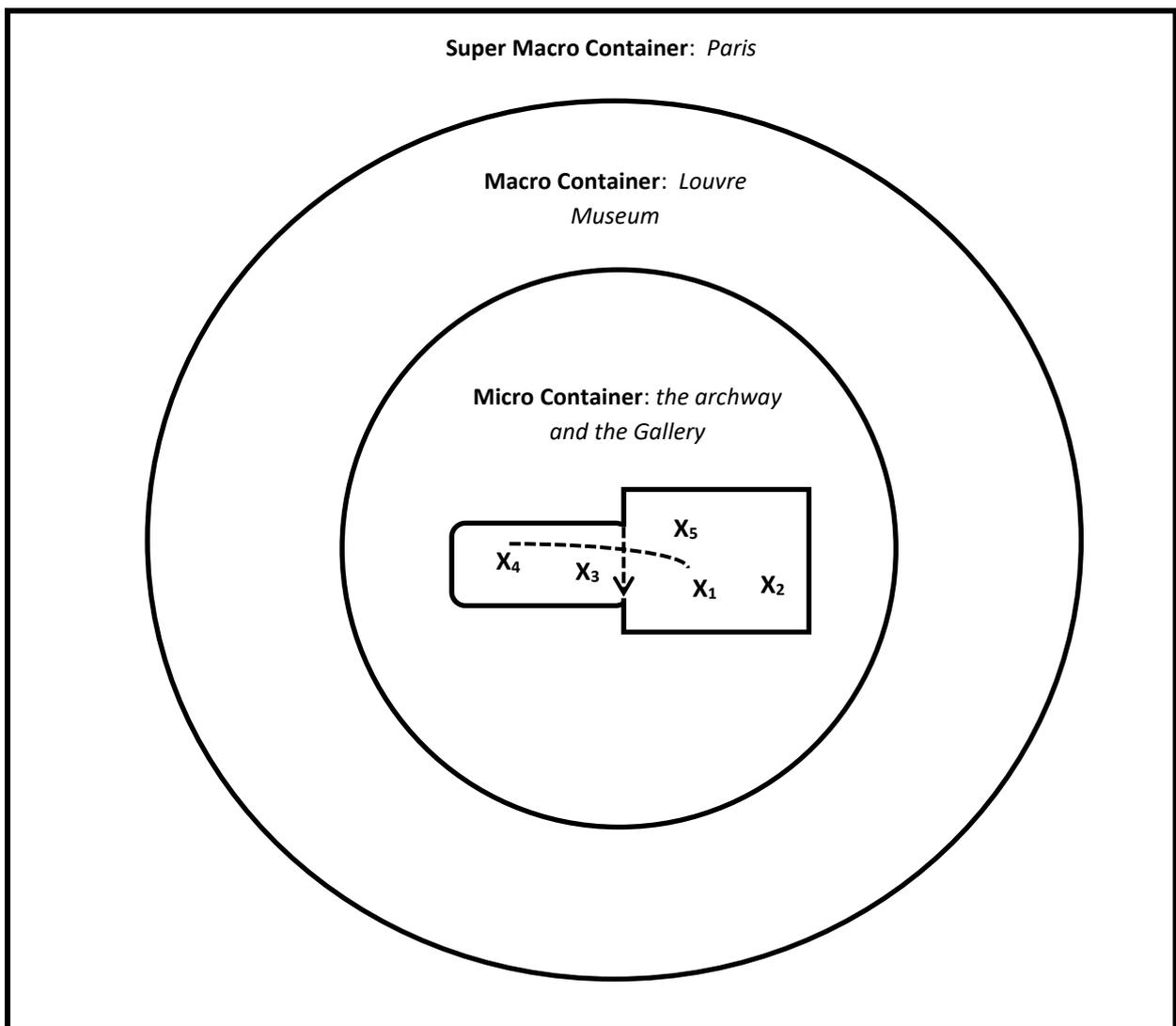
Figure 24: The container of Scene One

To clarify, the process can be likened to the layers of an onion. The whole scene occurs in the museum's archway and Gallery and this is the core of the scene in which all onstage contained entities are involved. This level

of container is called micro container. The level of macro container is conceptualized as the inner layer which refers to Louvre Museum itself, while the level of super macro container which refers to Paris as the outer layer. Hence, the skin on the outside, i.e., Paris, represents the container to the micro and macro container.

In the scene one, the entities and actions are individualized in different ways. Some objects and actions are classified as multiplex or uniplex, others are regarded as either bounded or unbounded, and many others are treated as discrete or continuous. Table 4 presents the selected objects and actions as schematic categories used in Scene One.

Table 4: The schematic individuation of Scene One

	Discrete	**Continuous**	
Multiplex	**Action:** gasping, shivering.	**Action:** staggered, grabbing, shook, taking.	**Unbounded**
	Matter: vaulted archway, breath.	**Matter:** canvas, breath, stock.	
		bars.	**Bounded**
Uniplex	**Matter:** curator, Museum, Gallery, painting, Caravaggio, frame, masterpiece, wall, gate, suite, floor, alarm, albino, pistol, coat, barrel, pulled.	**Matter:**	
	Action: to ring.	**Action:** lunged, collapsed, heaved, tore, fell,	

		barricading, lay, drew, aimed.	

Although the two parts mentioned above represent the general actions of the first MAS, there are several detailed scenes (MISs) used to build the whole scene. Such scenes are analyzed in the following section.

4.3.1.2. Micro Scenes

This section concerns with the analysis of a series of sequential minor scenes that determine and affect the overall scene. MISs are defined as a group of scenes that are arranged sequentially, leading elaborately to understand the scene as whole. It should be made clear that, for each scene, conceptually different processes take place. The combination of these scenes and processes leads to form a unified scene, i.e., MAS. The shift from one MIS to another can be realized through the shift in causality. In other words, whenever the causal relation changes, the MIS changes as well. Eleven MISs are selected under study to be analyzed in terms of scene-building model, as explicated below.

MIS[1]-i: *Renowned curator Jacques Saunière staggered through the vaulted archway of the museum's Grand Gallery.*

This scene consists of an animate mover who is the curator. The starting point takes place from the vaulted archway toward the Grand Gallery. The type of action is PROPEL which gives rise to PTRANS, since there is an external transfer of the physical object from one location to another. That is, the mover is forced to move because he is pursued by the attacker. This can be described in the following formula:

➢ **Mover** *{curator}* **PROPEL =>1 PTRANS from P[1]** *{archway}* **to P[2]** *{Gallery}*

The type of motion is factive in the sense that it is an actual perceived motion. It takes the form of horizontality, directional, backward and indirect. This is because the curator (the mover) moves unsteadily from archway to Gallery.

The causal relationship of this scene befalls when the curator is conceptualized as the causee because he is pursued by the albino who is treated as the stimulator as well as the causer of that action. The action 'staggered' is regarded as caused verb which leads to the result 'lunged for the nearest painting', as represented in the following way:

➢ **Stimulator/Causer** (*the albino*) → **caused** (*staggered*) → **causee** (*the curator*) → **result** (*lunged for the nearest painting*)

Physically, the vaulted archway of the museum's Grand Gallery is represented as the container and the curator is contained. It is necessary to clarify that the container is static and the contained is movable. This can be illustrated in the following diagram, where rectangle and square indicate container and x is the contained entity that stands for the curator:
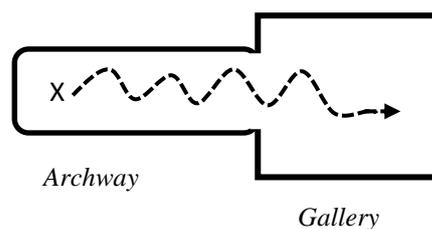
Archway

Gallery

 Figure 25: The containment of the action *staggered*

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1 The researchers use the symbol => to refer to the factive motion, and Ⅎ to fictive motion

In this scene, the writer uses the expressions 'Grand gallery' and 'the vaulted archway' to refer to the stationary shape of these entities, where the former indicates the large size of the object, and the latter refers to the idea that the object is non-flat.

In terms of individuation, the objects, curator, museum and Gallery are characterized by uniplexity as they involve only one entity. However, the object the vaulted archway is distinguished by multiplexity as it consists of more than one element. Relating to the domain of action, the act of staggering is classified as multiplex because it is intrinsically repeated action. Consider the schematic category 'boundedness', the entities 'archway', 'museum', 'Gallery', and 'the vaulted archway' are all regarded as bounded, since they are categorized as count nouns. By contrast, the action 'staggered' is considered as unbounded because it has the feature of ongoingness in the sense that it is durational. Beside, the lexical items archway, Museum, Gallery, and the vaulted archway are discrete in the sense that they can be divided into different entities. That is, they are formed as bases to several profiles; while the action staggered is continuous that does not have interruptions.

MIS[1]-ii: *He lunged for the nearest painting he could see, a Caravaggio.*

In this scene, the mover is conceptualized as the animate human the curator who dashes off from the archway, as the source of motion, toward the nearest painting in the Gallery which represents its goal. The kind of action is also PROPEL, leading to PTRANS in which there is a physical transfer of the mover from one place (archway) to another one (Gallery). It is PROPEL because he is still being chased by the attacker and rushes toward the board as a result. The following formula illustrates the form of action:

➤ **Mover** *{curator}* **PROPEL => PTRANS from P^1** *{archway}* **to P^2** *{Caravaggio}*

The transfer of the object in this scene is real, and therefore, it is described as factive motion, rather than fictive. Furthermore, this motion takes the form of horizontality. The direction is forward and in direct way.

To represent the causative relationship, the curator is viewed as the causer who is motivated to move by the albino; the act of lunging is described as caused verb; and the painting is referred to as causee. The result can obviously be shown in the following scene (scene 3), i.e., lunging for the nearest painting gives rise to tear it. This relation can be symbolized as follows:

➤ **Stimulator** (*the albino*) → **Causer** (*the curator*) → **caused** (*lunged*) → **causee** (*the painting*) → **result** (to *tear it*)

Since the curator moves in a straight line from the archway toward the painting, the containment schema used in this scene is linearity. Another stationary characteristic used in this scene is the distance in which a scene is portrayed. The schematic structure used to describe this category is the term nearest which is classified under the notion 'near'.

In the scene referred to, the uniplexity, boundedness and discreteness are expressed by the objects 'painting' and 'Caravaggio'. These objects are singular, and thus uniplex. Additionally, they are bounded because they are count nouns. Since painting and Caravaggio can be divided into different entities as substructures within the larger based structure, they are considered as discrete entities. In other words, the term painting, for instance, is a base to the profiles: its frame, canvas, what is painted, etc. The action lunged is defined as uniplex, since it does not intrinsically

indicate repetition as well as it occurs in past. It is also classified as bounded because of its momentary and non-continuous nature; and as continuous because it does not indicate interruption.

MIS[1]-iii: *Grabbing the gilded frame, the seventy-six-year-old man heaved the masterpiece toward himself until it tore from the wall and Saunière collapsed backward in a heap beneath the canvas.*

Different movers and motions have been clustered in this scene. The actions Grabbing and heaved are conceptually described as PTRANS. In these two sub-scenes, two movers are recognized: the animate human mover (i.e., the seventy-six-year-old man), and the inanimate mover (i.e., the painting). The man pulled out the painting from the wall, and then heaved it. This motivates the painting to move from the wall toward the man. This means that the wall is the source of the motion and the man is its destination where the painting reaches. This can be formulated as follows:

> ➢ **Mover** *{the man and the painting}* **PTRANS from P[1]** *{{the wall}* **to P[2]** *{himself}*

The direction of motion is toward the masterpiece to be grabbed and heaved. In both, motions are factive and vertical. The action 'grabbing' can be conceptualized as moving from top to down, viz., up-down, while heaved as bottom-up, as diagramed in Figure 26:
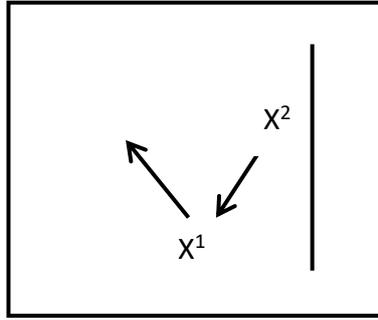
Figure 26: *Grabbing* and *heaved* forms of movement

This diagram shows the sequential motions of the painting. The first mover, the curator, is represented by X^1, while the entity X^2 refers to the painting. The right line is the wall that refers to the source of motion. The scenario is that the man first grabs the painting, motivating it to move toward himself, forming the movement of up-down. Then, he heaves it to take the form of bottom-up.

In both mentioned actions (grabbing, and heaved), the curator is the container and the painting is the contained entity. Thus, the painting is represented as landmark, while the curator as trajector. Schematically, the containment comprises three elements: interior, boundary and exterior. In this scene, the boundary is the wall, on which the painting is hung; the interior is represented by the painting; and the exterior by the curator.

On the other side, the action tore is classified as PROPEL at which the inanimate mover, i.e., the masterpiece, is physically forced to be torn. This PROPEL certainly causes PTRANS. As the source of motion, this action starts from the wall directly toward the curator. This can be schematically shown in the following structure:

> **Mover *{the masterpiece}* PROPEL => PTRANS from P^1 *{the wall}* to P^2 *{the curator}***

The motion is factive in the sense that there is a real moving from P^1 to P^2. This motion is vertical in the form of up-down.

In this scene, the man is the stimulator and causer of the acts 'grabbing', 'heaving' and 'tore'. On the other hand, the causee (i.e., the masterpiece) undergoes a change of state; and the result is its tearing from the wall. This relation can be illustrated in the following way:

> ➤ **Stimulator/Causer (*the man*) → caused (*grabbing* and *heaving*) → causee (*the masterpiece*) → result (*tearing it*)**

Physically speaking, the container image schema of the tore action is the wall which is described as both the boundary and interior. The painting, by contrast is schematized as contained in terms of exterior trajector. This can be diagramed as follows:
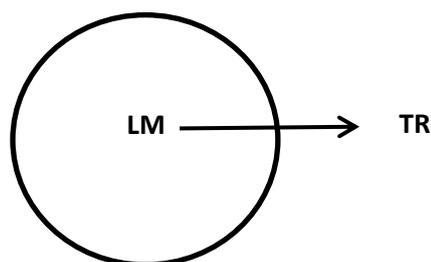
Figure 27: The containment of the *tore* action

In this diagram, the landmark (LM), represented by the circle, includes two components: the interior (the area within the boundary) and the boundary itself. The exterior is the area outside the boundary, involved within the square which refers to the place (the Gallery). The container (the wall) is represented as the LM, while the exterior (the painting) as the TR.

The final action of this MIS is classified as PROPEL that gives rise to PTRANS. It is PROPEL because there is an external physical force to

make the mover transfers from the first position (P^1) to the second one (P^2). That is, the curator (or Saunière) has forced to fall backward.

Hence, the wall is represented as the source from which the moving object, Saunière, starts. The direction of motion is the falling in a heap beneath the canvas. This can be illustrated in the following formula:

> **Mover *{Saunière}* PROPEL => PTRANS from P^1 *{the wall}* to P^2 *{a heap beneath the canvas}***

The motion of the action 'collapsed backward' is factive and takes the form of trajectory and vertical, as illustrated in the Figure 28:
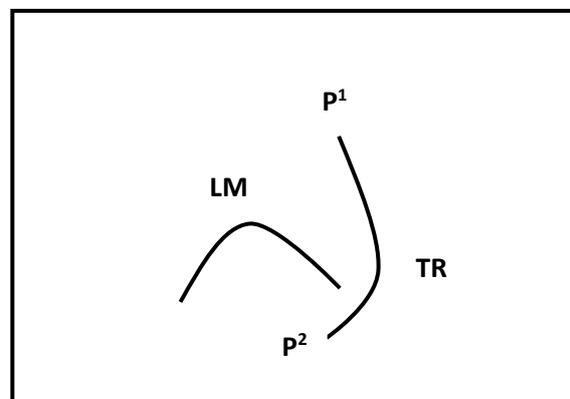
Figure 28: The trajectory motion of *collapsed backward*

In this scene, the curator goes through two steps, moving from P^1 to P^2 which is under a heap of the canvas. This can be applied to the containment of out-In. The TR the curator, which is the entity that undergoes motion, moves from P^1 (Out) to P^2 inside the LM. Moving from P^1 to P^2 involves an arc-like trajectory. Accordingly, a heap of the canvas is conceptualized as a container (LM) and the curator as contained (TR).

In the causality of the act collapsed, the first stimulator is Saunière, since he motivates the masterpiece to be grabbed in relation to the previous scene. As such, the masterpiece is triggered to be the causer which is

responsible for the action. Although he is assigned as the subject and stimulator of that action, Saunière is depicted as the causee. The caused action is the process of collapsing backward; and the result is the falling under the canvas. The causative relation can be conceptualized as follows:

> **Stimulator (*Saunière*) → Causer (*the masterpiece*) → caused (*collapsed*) → causee (*Saunière*) → result (*falling under the canvas*)**

Finally, the schematic individuation of this MIS takes place through different categories. In term of plexity, the expressions 'frame', 'man', 'masterpiece' and 'wall' are treated as uniplexity due to their singular property. In addition, the actions collapsed, heaved and tore are also uniplexity for two reasons: they do not demonstrate frequency and the actions happen in past, and therefore, do not show continuation. However, the expression 'a heap beneath the canvas' and the action 'grabbing' are both conceived as multiplex because the former indicates plurality and the latter repetition.

The count nouns frame, man, masterpiece and wall have bounded structures, that is, each has inherent edges which can thus be individuated and counted. Relating to the domain of time, the actions collapsed, heaved and tore are also bounded in structure. This is due to the fact that they are momentary. Moreover, the concepts frame, man, masterpiece, and wall are discrete objects in which they can be profiled into different entities. By contrast, the word 'canvas' is regarded as continuous entity that cannot be divided into smaller ones. The actions collapsed, grabbing, heaved, and tore are continuous that cannot be interrupted into distinct discontinuities.

MIS[1]-iv: *As he had anticipated, a thundering iron gate fell nearby, barricading the entrance to the suite.*

In this scene, the mover iron gate is deemed as an inanimate. It undergoes an external force to be fallen. This is known as PROPEL action which decidedly leads to PTRANS. The source of motion is the roof of the entrance, whereas the goal is the floor of the Gallery. The motion, which is factive, is vertical in the form of up-down: the actions fell and barricading are conceptualized as moving from top to bottom (See Figure **29**). The MIS of falling is structured as follows:

➢ **Mover** *{iron gate}* **PROPEL => PTRANS from P[1]** *{the roof of the entrance}* **to P[2]** *{the floor of the Gallery}*

Although the curator is the first stimulator in this scene, the ringing of an alarm triggers the gate to fall. This is because the curator draws the painting which motivates the alarm to ring which in turn triggers the gate to fall, this is what we have called *causative transitionality* (see Figure 30). The caused action is described by the verb 'fell'; and the result is the blocking of the entrance. The causative transfer can be shown in the following way:

➢ **Stimulator** (*the curator*) → **Causer** (*the alarm*) → **caused** (*fell*) → **causee** (*the iron gate*) → **result** (*the blocking of the entrance*)

The LM (the floor of the suite) represents as the surface, and thus, as the container. The contained TR, on the other hand, is lexicalized by iron gate. In other words, the TR moves from a position outside the LM to occupy a location inside the LM. This container image schema can be described in the following diagram:

TR

LM
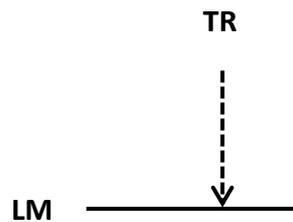
Figure 29: The containment of the *falling* action

In this diagram, two entities are remarkable: the iron gate and the floor. The floor is viewed as a surface (container) in which the contained TR, which is indicated by iron gate, falls to contact with the surface.

Another stationary representation of MIS[1]-iv is the description of the mover iron gate. The writer uses the modifier thundering which is categorized under the stationary schema 'big' to indicate the iron gate. He also employs the term nearby to refer to the distance of the scene which is categorized as 'near' image schema.

In the above scene, the lexical items gate and suite are characterized by uniplexity, that is, the quantity includes one entity. Such items are also bounded because they can be counted. In addition, they are discrete entities, since they can be individualized into different entities. On the other hand, the actions fell and barricading are classified as uniplex and continuous, as having single actions. Furthermore, the initial portions and their final portion of these actions are grammatically bounded.

MIS[1]-v: *The parquet floor shook. Far off, an alarm began to ring.*

This scene consists of two dynamic actions: 'shook' and 'to ring'. In both, the motion is conceived as factive in which there is a real motion from P^1 to P^2. In the 'shook' action, the mover is the parquet floor which undergoes the action of PROPEL that causes PTRANS. Put it differently, the fall of iron gate forces the floor to shake.

What makes the 'shook' action distinct from other is that there is no direction and goal in its motion, although the parquet floor is conceptualized as the mover and the source of motion at the same time. Moreover, the reason why motion does not have specific direction and target is that its form is horizontally frictional.

The causality in this scene can be taken place through the representation of the five causative elements. The stimulator is the curator and the causer is the iron gate, as represented in the previous scenes, because its fall triggers the floor to shake. Therefore, the causee is the floor, and the caused action is shook. The result of the causer's action is the shake of the floor. This causative transitionality can be illustrated in Figure 30, and formulated by the following scheme:

> **Stimulator (*the curator*) → Causer^1 (*the painting*) → Causer^2 (*the alarm*) → Causer^2 (*the iron gate*) → caused (*shook*) → causee (*the floor*) → result (*the shake of the floor*)**
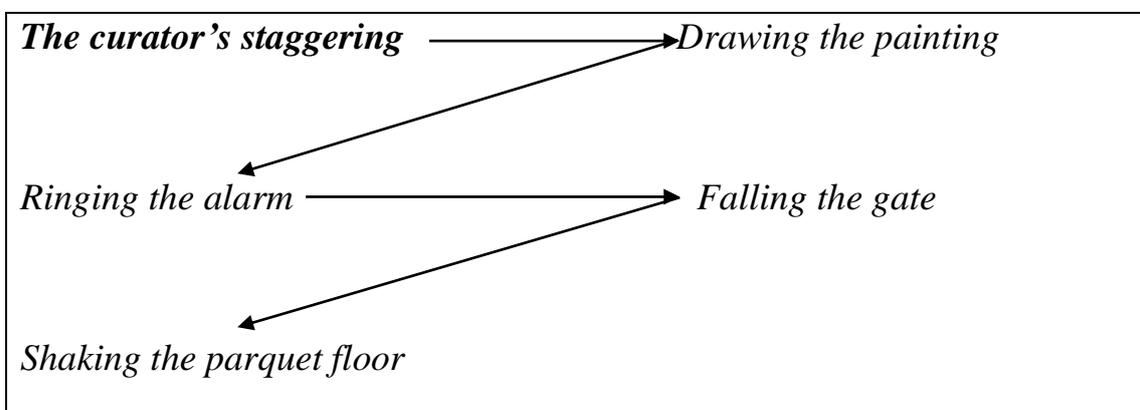
Figure 30: The causality of falling the gate

One of the stationary characteristics of this scene is that the parquet floor is described as the surface containment. That is, it is the LM which embraces the iron gate. The parquet floor is, therefore, the container in terms of surface and the iron gate is the contained matter. Another

stationary feature is the use of the expression 'the parquet floor' which indicates that it takes the form of flatting.

The action 'to ring', by contrast, is highly abstract, as the source of motion is the alarm and the mover is the sound coming from that alarm toward archway and Gallery (representing the destination of motion). This kind of action can be classified as PROPEL that leads to the action of PTRANS in which there is a physical transfer of a sound from the alarm to the target object. Such motion is non-directional in the sense that it is characterized as a cyclic motion. This is typified in the coming structure:

> **Mover *{the sound}* PROPEL => PTRANS from P^1{the alarm}* to P^2 *{archway and Gallery}***

In this scene, the causative verb is the curator's tearing out the painting which gave rise to another action to happen (ringing of an alarm), as its result. The first stimulator and causer of this action is the curator who motivated, through tearing out the painting, the iron gate to fall down which in turn stimulated the floor to shake and the alarm to ring. While the curator is the first causer, an alarm is the causee that undergoes the action. The causality of this scene can be translated as follows:

> **Stimulator/Causer (*the curator*) → caused (*tearing out the painting*) → causee (*an alarm*) → result (*began to ring*)**

While the TR (the sound) emerges from the LM (the alarm); the containment of out-in can be applicable. The alarm is represented as the container from which the sound is emanated and spread 'out' into the surround world. In other words, the mover moves from inside the LM to occupy a location outside: from P^1 (In) to P^2 (Out). This containment can be schematized in the following diagram:
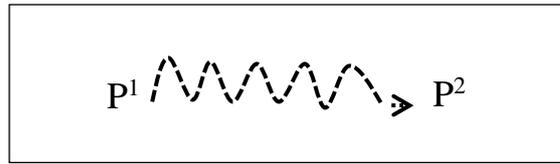
Figure 31: The containment of the *ring* action

In this diagram, P^1 refers to the LM which is the container of the TR the sound. The TR, in turn, moves form inside LM to outside to be located in P^2.

The expressions 'floor' and 'alarm' have the structures of uniplex, bounded and discrete because they are singular, countable and dividable entities. However, the verbs 'shook' and 'to ring' are treated as multiplex due to their repeated nature, and are unbounded because their indivisible status. In terms of dividedness, shook is continuous and to ring is discrete, as it can be broken off.

MIS^1-vi: *The albino drew a pistol from his coat and aimed the barrel through the bars, directly at the curator.*

In the above scene, two actions are happened: 'drawing' and 'aiming'. Both actions are treated as PROPEL that causes PTRANS actions, since the moving entity physically undergoes external force to be moved. In the 'drawing' action, the mover is a pistol which factually moves from the albino's coat toward the curator. The verticality is the form of this motion in the sense that a pistol is displaced from bottom (i.e., from the albino's coat) to up. This motion is structured in the following formula:

> ➤ *Mover {a pistol} PROPEL => PTRANS from P^1 {the albino's coat} to P^2 {the curator}*

The agent who motivates and causes the action of drawing is the albino, and the object that carries out the action is a pistol. The caused action is

'drew' which leads to the result of aiming the barrel at the curator, as shown in this way:

➤ **Stimulator/Causer** (*the albino*) → **caused** (*drew*) → **causee** (*a pistol*) → **result** (*aiming the barrel at the curator*)

The LM of this action is the albino's coat, and therefore, it is the container from which the contained object, a pistol, goes out. This related to the containment of in-out in which the TR a pistol moves from P^1 inside the albino's coat to P^2 outside it.

However, the mover of aiming action is the barrel which can also be assorted as PROPEL that prompts PTRANS**.** It is notable that the barrel factively moves from the albino through the bars to the curator. The physical motion form of this action is horizontally forward direction. In other words, the barrel is fronted forward directly at the curator. The transfer of the mover in this scene from P^1 to P^2 can be translated into the following pattern:

➤ **Mover** *{the barrel}* **PROPEL => PTRANS from** P^1 *{the albino}* **to** P^2 *{the curator}*

In relation to the action of drawing, the caused verb of this action is aimed which is done by the albino as the causer who is also the initiator of that action. The thing that endures a change is the barrel, and the action itself (the curator is at gunpoint) is the same as the result. This causative relation between the causer and causee is schematically represented in the following structure:

➤ **Stimulator/Causer** (*the albino*) → **caused** (*aimed*) → **causee** (*the barrel*) → **result** (*the curator is at gunpoint*)

Hence, the container is the albino which represents the LM of the action from which the contained TR the barrel is released. In short, the albino is the carrier of the barrel.

One of the physical appearances shown in this MIS is the representation of the albino character. The albino is a person who has extremely pale skin and eyes; and white hair. Another schematic characteristic is individuation which can be indicated by the uniplexity, boundedness, and discreteness of the expressions 'albino', 'pistol', 'coat', 'barrel', and 'curator'. Such words are uniplex because they are singular, bounded because they are count nouns, and discrete due to their ability to divide into different entities. On the other hand, the actions drew and aimed have further the same characteristics. They are uniplex because they are given in the past aspect and do not indicate repetition. They are also bounded because of their past representation and momentary nature. Finally, such actions can also be classified as continuous, since they cannot be divided into discrete interruptions.

MIS^1-vii: *The man tilted his head, peering down the barrel of his gun.*

In the above scene, the man's head is conceived of as the mover. The source of motion is the man (the albino) himself at which his head moves from top to bottom, directly at the barrel of his gun. This action is treated as PTRANS because the mover physically displaces from p^1 to p^2 without any external force. Furthermore, the motion is factive and has the trajectory form. Moreover, the motion of tilting can be structured as follows:

> ➤ **Mover** *{the man's head}* **PROPEL => PTRANS from P^1** *{the albino}* **to P^2** *{the barrel of his gun}*

The person who is responsible for moving the head is the man. That is, he is the stimulator and causer who makes his head, as the causee, stir up to move. The action tilted is the caused verb that leads to the result of peering down the barrel. This can obviously be schematized in the following formula:

> ➤ **Stimulator/Causer (*the man*) → caused (*tilted*) → causee (his head) → result (*peering down the barrel*)**

In this scene, the man is considered as the container that carries the gun. If he moves, the contained entity moves with it as well and this is due to the fact that the man represents the LM of the scene.

The individuality of this scene can take place through the uniplexity, boundedness, and discreteness of the object 'man', 'head', 'barrel' and 'gun', since they are singular, countable and discrete entities. While the action tilted has also uniplex, bounded structure due to its past, non-repeatable, and momentary, it is considered as continuous because of its uninterrupted representation. The act 'peering', on the other hand, is conceptualized as a multiplex, unbounded and continuous. This is due to the fact that this action is iterative, durational and indivisible.

MIS[1]-viii: *The attacker aimed his gun again.*

The action of this scene is classified as PROPEL, that results in PTRANS in which the gun (i.e., the inanimate mover) is physically forced by the attacker to move toward the curator's head. This motion is factive because the moving object is oriented by the source object physically toward a direction. Horizontally, the gun moves straight ahead. The motion of the act aiming from the source to the goal is translated as follows:

➢ **Mover** *{the attacker's gun}* **PROPEL=>PTRANS from P1** *{the attacker}* **to P2** *{the curator's head}*

The protagonist who causes and also motivates the action to be done is the attacker, while the entity that undergoes the action is his gun. The action 'aimed' is the caused verb which leads to the result of aiming the gun toward the curator. This can be represented as follows:

➢ **Stimulator/Causer (***the attacker***) → caused (***aimed***) → causee (***his gun***) → result (***aiming the gun toward the curator***)**

It is obvious that the agent is conceptualized as the causer, the gun as the causee, and the causative verb as the caused. However, the result cannot be explained only from this scene without connecting it with preceding scenes.

The stationary characteristics of this scene can be defined in terms of containment. The attacker is considered to be the carrier of the gun, which means that he is the container and the gun is the contained. Whenever the attacker moves, the gun moves with him.

Both the attacker and the gun are shown as uniplex, bounded and discrete entities. This is due to the fact that they are singular, countable and can be internally divided into different profiles. Although the action aimed indicates past aspect, in the context of this scene, it is conceptualized as multiplex because the action is repeated twice. In other words, unlike its representation in MIS[1]-vi which is categorized as uniplex, the verb 'aimed' in MIS[1]-viii is treated as multiplex because it is described by one of the adverbs of frequency, again. However, the act of aiming is unbounded, as it encodes a semelfactive aspect; and continuous, as it is indivisible.

MIS[1]-ix: *The gun roared, and the curator felt a searing heat as the bullet lodged in his stomach.*

Although the action roared appears to be non-movable, there is a physical transmission of the sound, which is metaphorically refers to the bullet, from the gun toward the curator. Therefore, the mover is the sound that comes from the gun as a source of motion toward the curator, which represents the target. The type of motion is fictive because it is not the sound which moves, but it is the bullet. The action of roaring is regarded as PROPEL that causes PTRANS where the sound transfers from the gun to spread in the place. It is PROPEL because the attacker who actually forces the gun to be roared. The motion of sound in this scene is described as cyclic which means that there is no specific direction to the mover. The transfer of sound can schematically be translated into the following formula:

➢ **Mover *{the sound}* PROPEL Ⱦ PTRANS from P1 *{the gun}* to P2 *{the curator}***

Although the gun is noticeably the causer of the act roaring, the first stimulator who makes the gun takes action is the man. Therefore, the man (i.e., the attacker) who carries the gun is the real stimulator, and the gun is the causer and causee at the same time. This is because it causes the action of roaring and undergoes that action. The caused verb is roared which gives rise to the result of lodging of the bullet in the curator's stomach, in relation to the following sub-scene. This is shown in the following structure:

➢ **Stimulator (*the attacker*) → Causer (*the gun*) → caused (*roared*) → causee (*the gun*) → result (*lodging of the bullet in the curator's stomach*)**

It is remarkable that the gun is conceptualized as the LM container from which the sound gets out. As such, the containment of in-out is feasible, where the sound transfer from P^1 (In) to P^2 (Out) outside the LM.

After the roaring of the gun, the bullet lodged in the curator's stomach. In this scene, the mover is conceptually the bullet which is dashed off from the gun, as the source of the motion, toward the curator's stomach which represents its goal. This transition is also PROPEL that leads to PTRANS due to the fact that the bullet is physically forced by the gun, which is in turn forced by the attacker, to move. The motion of lodging of the bullet is fictive because this act is used metaphorically. Directionally, the mover transfers forward from the source to the goal. This can be represented in the following structure:

➢ **Mover** *{the bullet}* **PROPEL ꟻ PTRANS from P^1** *{the gun}* **to P^2** *{the curator's stomach}*

The object, 'the bullet', is triggered to release by the gun. Therefore, the gun is the causer and the bullet is the causee. Here, the attacker is also the first stimulator who prompts the gun to release the bullet. The caused action is lodged which leads to the result 'the curator's feeling of a searing heat'. The following formula shows this causal relationship.

➢ **Stimulator** (*the attacker*) → **Causer** (*the gun*) → **caused** (*lodged*) → **causee** (*the bullet*) → **result** (*the curator's feeling of a searing heat*)

Since the bullet lodged in the curator's stomach, the bullet is considered the contained entity and the stomach is the container. That is, the container represents the LM in which the TR lodged in.

The expressions 'gun', 'curator', 'bullet', and 'stomach' are singular, and thus they are uniplex. Such words are also bounded because they can be counted. Finally, they are regarded as bases which can be divided into several profiles, and therefore they are described as discrete entities. By contrast, the expression 'searing heat' has multiplex, unbounded, and continuous structure because it is plural, mass, and undividable object.

The actions 'roared' and 'lodged' are both uniplex and bounded because they do not indicate repetition and continuity. However, such actions are not treated as discrete because they cannot internally be segregated or interrupted.

MIS[1]-x: *The curator looked down and saw the bullet hole in his white linen shirt. It was framed by a small circle of blood a few inches below his breastbone.*

This MIS involves two actions: looking down and framing action. In the first action, the curator's head moves down to look at the hole made by the bullet. Therefore, his head is depicted as the animate mover of a scene and the source of motion at the same time, whilst the bullet hole is the destination where line of sight reaches at. The motion of moving his head down is factively perceived in the sense that there is a real motion. The form of movement takes the form of both up-down and trajectory, i.e., the curator's head moved from top to bottom in an arc.

Since the curator motivates his head to move physically toward the goal of motion, the type of schematic transition used is PROPEL which produces PTRANS action. This transition can be conceptualized in terms of the present formula:

➢ **Mover** *{the curator's head}* **PROPEL => PTRANS from P^1** *{the curator}* **to P^2** *{the bullet hole}*

In the action of looking down, the stimulator is the curator who motivates his hand (the causee) to move down in order to look at the bullet hole (causee) which undergoes the action. The caused action is the verb 'looking down' which leads to the result of framing the hole by a small circle of blood. The causative relation of the looking down action is illustrated as follows:

➢ **Stimulator/Causer** (*the curator*) → **caused** (*looked down*) → **causee** (*the bullet hole*) → **result** (*framing the hole by a small circle of blood*)

In the 'framing' action, on the other hand, the bullet hole is construed as the inanimate mover that locates at the curator's body. This means that the source and the goal of motion stand for the same location, which is the curator's body a few inches below his breastbone. The motion is categorized as fictive because the verb 'frame' is motion verb, and here it is used metaphorically to refer to a static situation. The action is also classified as PROPEL, which results in PTRANS. This is due to the fact that the acting of framing the hole is physically forced by the bullet. The 'framing' action is formulated by the following scheme:

➢ **Mover** *{the bullet hole}* **PROPEL ꜰ PTRANS from P^1** *{the curator's body}* **to P^2** *{below his breastbone}*

The action of framing was firstly motivated by the attacker (i.e., the albino) who triggered his gun to release the bullet toward the curator's body, framing the hole by a small circle of blood (see Table 3). As such, the attacker is the stimulator, the bullet is the causer, and the hole is the causee on which the action occurred. The verb 'framed' is the caused

action that creates the result of 'the bullet lodged in his body', as shown in the following structure:

> **Stimulator (*the attacker*) → Causer[1] (*the gun*) → Causer[2] (*the bullet*) → caused (*framed*) → causee (*the bullet hole*) → result (*the bullet lodged in his body*)**

The curator's body is conceived as the container, while the bucket hole is the contained entity. The schema of out-in can also be used to describe the containment of this MIS. That is, the bullet moves from outside (i.e., from the gun) to occupy a location inside the curator's body. As such, the TR is the bullet, whereas his body is construed as the LM.

Physically speaking, the writer uses different characteristics to describe entities in this MIS. For instance, he gives the white colour to the curator's shirt. He also describes the circle of blood as small circle of blood.

Relating to domain of space, the entities 'the curator', 'the bullet hole', 'circle', 'shirt' and 'breastbone' have uniplex and bounded structures. This is due to the fact that they are singular and count nouns. Although the entity 'inches' is multiplex because it is plural, it is conceptualized as bounded entity as a consequence of its countability. However, the word 'blood' is categorized as multiplex and unbounded, due to its mass nature. In terms of dividedness, the expressions, 'the curator', 'the bullet hole', 'shirt' and 'breastbone' are discrete. This means that they are composed nouns. On the other hand, the words 'circle' and 'blood' are continuous because they cannot be divided into smaller entities. Relating to domain of time, both actions (looked down and framed) have the structures of uniplex, bounded and continuous.

MIS[1]-xi: *Shivering, he pulled himself to his feet.*

This MIS involves two actions 'shivering' and 'pulled'. The curator is conceptualized as the animate mover. The type of the two actions is PROPEL. This is because he is forced to do these actions. Since there is a physically motion, the action becomes PTRANS. The source of motion is his position, and the target is his feet. This transfer can be illustrated by the next scheme:

> **Mover *{the curator}* PROPEL => PTRANS from P[1] *{his position}* to P[2] *{his feet}***

Two forms of movement are used in this MIS. The first is frictional, representing in the verb 'shivering', while the verb 'pulled' can be described in terms of gathering movement.

As concern causality, although the stimulator is the curator, the fear is causer of the 'shivering' and 'pulled' actions. He is also conceptualized as the causee that undergoes the actions. The result is that he is afraid, as shown in the following structure:

> **Stimulator (*the curator*) → Causer (*the fear*) → caused (*shivering, pulled*) → causee (*the curator*) → result (*he is afraid*)**

In relation to individuation, the action 'shivering' is multiplex because it has repeated structure. It can also be described as unbounded and discrete due to the fact that it intrinsically indicates continuous and can be divided internally. However, the verb 'pulled' has uniplex, bounded, and continuous structure because it has non-repeated, completed, and non-interrupted structure.

4.3.1.3. Nano Scenes

This level of analysis is related to the mental segmentation of a scene into implied meaningful scenes. In other words, a scene can be divided into conceptually distinct meaningful chunks that can be logically determined. Under analysis, three instances of MISs, extracted from the scene of attacking against the curator, are randomly selected to analyze their implied NASs:

NAN[1]-i: *He lunged for the nearest painting he could see, a Caravaggio.*

This scene can be divided into six conceptually distinct spatiotemporal NASs, as in:

  a. *He stood somewhere.*

  b. *He had started running.*

  c. *He continued running.*

  d. *He saw the painting of a Caravaggio.*

  e. *He lunged toward it.*

  f. *He collided with it.*

These NASs are sequentially arranged and their collection forms the whole scene. The agent (the curator) is the maker of that scene. The story began with static scene when he stood somewhere inside the museum, in NAS (a). Scene (b) extended scene (a) when the curator started running moving from the place he was standing toward the Grand Gallery. In NAS (c), he continued moving forward, and from a group of paintings he caught his gaze on the painting of a Caravaggio (d). Then, the curator lunged toward the painting in NAS (e). In the final NAS (e), the scenario ended with blocking of motion when he collided with it.

161

NAN[1]-ii: *On his hands and knees, the curator froze, turning his head slowly.*

The scene is separated into five NASs, depending on the simulation of the mover's motions:

a. *The curator bended the knees.*

b. *He crumpled to his knees.*

c. *His hands touched the floor.*

d. *He froze in fear.*

e. *He turned his head slowly.*

The VA of these NASs takes place sequentially in the sense that the first NAS cannot follow the second one. Put it differently, the curator first bended the knees (a) and crumpled to his knees (b). Then, his hands touched the floor (c). After that, the curator froze in fear (d), turning his head slowly (e).

NAN[1]-iii: *The albino drew a pistol from his coat and aimed the barrel through the bars, directly at the curator.*

This scene can be broken down into six smaller conceptual NASs. These are represented as follows:

a. *The albino stood behind the bars.*

b. *He moved his hand toward his pistol.*

c. *He grabbed it.*

d. *He drew it from his coat.*

e. *He directed the pistol forward.*

f. *He aimed the barrel through the bars, directly at the curator.*

In parallel, these NASs are collected in the way that form wider MIS. Furthermore, the order of these NASs is occurred sequentially in the sense that we cannot favor one over the other or manipulate their arrangement. In NAS (a), the albino stood behind the bars inside the museum. Then in NAS (b), he moved his hand to take his pistol. Extending NAS (b), he grabbed his pistol in scene (c) and drew it from his coat in scene (d). Finally, through the bars he directed the pistol forward in scene (e) and aimed its barrel, directly at the curator.

4.3.2. Construalization of Scene One

4.3.2.1. Saliency

Saliency is how attention is distributed over the entities of a scene. The distribution of attention takes place when the writer selects the elements that affect the VA of a scene and place them in the center of attention. In Scene One, the writer highlights many elements that play a major role in arranging the scene and influencing its actions, such as the participants (Saunière and his attacker), and other entities (such as the vaulted archway, the gallery of the museum, the painting that Saunière collided with, the iron gate and its bars, as well as the weapon that was used to kill Saunière). That is, all of these elements are onstage and are being clearly perceivable by the readers. However, other elements, such as the ceiling and walls of the gallery, Saunière's and his attacker's clothes, the paintings shown (except for the painting of Caravaggio with which Saunière collided), the type and size of weapon used to kill Saunière, etc., are off-stage elements. This means that the writer does not depict these irrelevant elements because they do not affect the sequential order of actions in the scene.

However, some onstage elements of a scene have gained a prominent position over others through the use of several linguistic construal aspects, which greatly affect the VA of the movable scene. One of these aspects used to foreground some elements of a scene and background the others is figure-ground alignment. Every dynamic scene has figure which holds the prominent part of a scene, and ground that has less saliency. Consider the following sequential MISs taken from Scene One:

1. *Renowned curator Jacques Saunière staggered through the vaulted archway of the museum's Grand Gallery.*

2. *He lunged for the nearest painting he could see, a Caravaggio.*

3. *Grabbing the gilded frame, the seventy-six-year-old man heaved the masterpiece toward himself*

4. *until it tore from the wall and*

5. *Saunière collapsed backward in a heap beneath the canvas.*

In scenes (1), (2), (3) and (5), Saunière, who is represented as the figure, holds the focus of attention. What makes Saunière more prominent or remarkable than other parts of a scene is that he is a moving or conceptually movable entity that has orientation. On the other hand, the gallery, the masterpiece, and a heap beneath the canvas have somewhat a stationary setting. However, in scene (4) the figure the masterpiece is more prominent than the wall which is recognized as the ground, because the masterpiece has the characteristic of movement in this scene.

Another strategy of focusing attention is zooming. Zooming process is used to narrow the scope to reach the optimal lexical concept which holds the most scope of attention. In scene (1) above, the writer narrows the scope, starting successively from the most distant scope of attention (i.e., the museum), which has Grand Gallery, which consists of the vaulted

archway. The optimal lexical concept, the vaulted archway, holds the most scope of attention, while the general concept (the gallery) has the most distant scope.

The grammatical arrangement in this scene can also be used to foreground some entities or actions over others. Consider the following two scenes:

6. *Staggering to his feet, he pictured his three murdered brethren.*
7. *Shivering, he pulled himself to his feet.*

The actions of 'staggering' and shivering are introduced to give them highest saliency over the actions that follow. That is, the writer tried to depict the state of fear that the curator was in by preposing these two actions.

4.3.2.2. Perspective

From the cognitive semantic perspective, the writer (i.e., Dan Brown) and the reader are part of the scenes, and thus, a scene is objectively construed. In scene (1) above, the writer[1] depicts the scene for the reader in the way that Saunière staggered through the vaulted archway toward the Grand Gallery which was in front of him, as seen in Figure 32, i.e., the viewing angle is toward the Gallery. Such type of viewpoint involves a motion perspective, i.e., a sequential mode:

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1 The study regularly adopts the writer's viewpoint

Perspective viewpoint

The archway
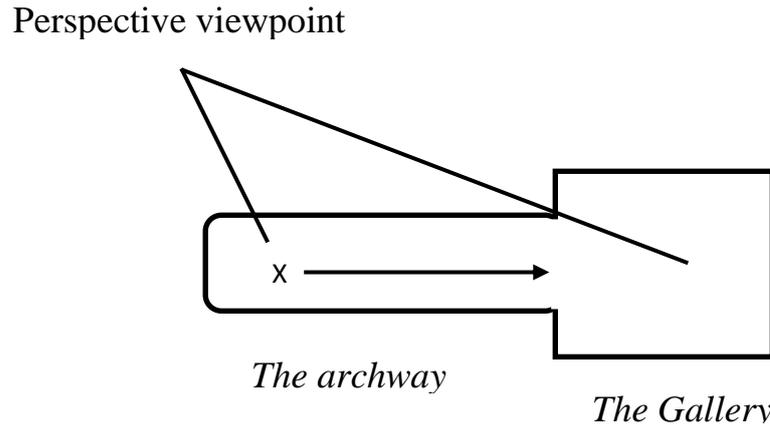
The Gallery

Figure 32: The viewpoint of the scene *Saunière staggered through the vaulted archway*

However, when Saunière went inside the Gallery, the angle of view, i.e., viewpoint or direction, is reversed 180 degrees. That is, Saunière is situated inside the Gallery and the attacker outside in the archway.

8. *Only fifteen feet away, outside the sealed gate, the mountainous silhouette of his attacker stared through the iron bars.*

The use of spatial deictic expressions 'fifteen feet away' and 'outside' indicates that the writer depicts the scene from the Saunière' viewpoint. This can be illustrated in the following diagram:

Perspective viewpoint

The archway

The Gallery
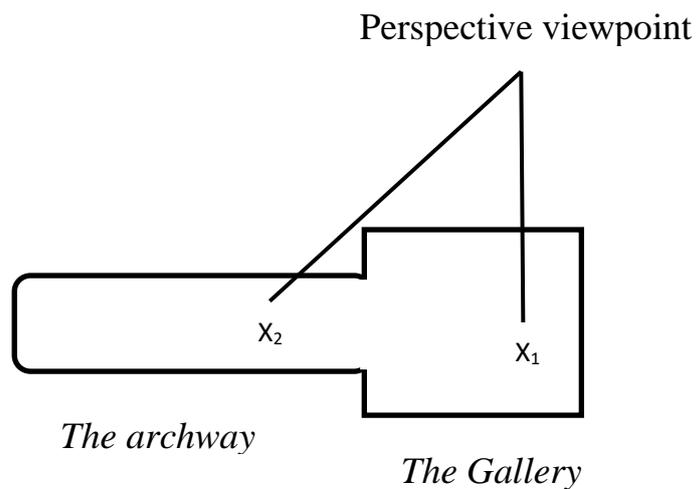
Figure 33: The viewpoint of the scene *Only fifteen feet away, outside the sealed gate*

The writer also uses other prepositions to construe the same scene, but in different ways. Consider the following two extracted scenes:

9. *Saunière collapsed backward in a heap beneath the canvas.*

10. *He crawled out from under the canvas.*

Both scenes are conceptualized depending on two different spatial prepositions, *in* and *under*. In both scenes, Saunière is conceptualized under the canvas. But, in scene (9), the writer focuses on his vantage point from the top, while in scene (10) it is from the bottom. Therefore, he depicts the same scene in two different orientations.

The epistemic perspective has a key role in the construalization of Scene One. The writer shows the shared knowledge between the participants through the use of definite and indefinite articles, for instance,

11. *A voice spoke, chillingly close.*

12. *The mountainous silhouette of his attacker stared through the iron bars.*

In scene (11), the writer shows that Saunière does not share information about the person the voice came from, namely, he does not know about the attacker. In scene (12), Saunière knew that the voice had come out of the mountainous silhouette of his attacker. The writer alters his perspective through the use of definite article 'the'. This means that his epistemic perspective has reversed.

4.3.2.3.   Judgement and Comparison

In Scene One, the writer categorizes different objects and actions in terms of others. Since the study concentrates on the analysis of dynamic scenes used in the selected novel, the following scene, extracted from Scene One, represents the framing process:

13.Almost cruelly, the bullet had missed his heart. As a veteran of la Guerre d'Algérie, the curator had witnessed this horribly drawnout death before.

In scene (13), the writer links two scenes within one domain or frame. The scene of blood and murder was already categorized in Saunière's mind. This means that there is a kind of comparison between the scene that happened with him in the museum's Gallery and a prior scene when he was a veteran.

Metaphorically speaking, the writer employs different metaphors to describe dynamic scenes. For instance, the verb 'froze' is used, in scene (14), metaphorically to conceptualize Saunière's case.

14.On his hands and knees, the curator froze, turning his head slowly.

Hence, there is a comparison between the actions of fear and freeze. The former represents the source domain, whereas the latter the target domain. Their relationship can be diagrammed as follows:
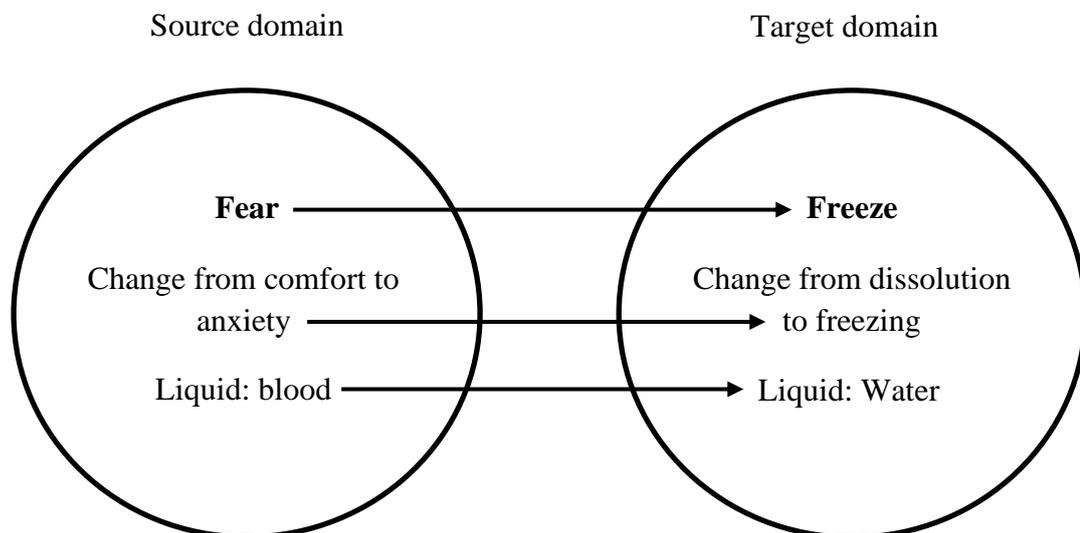
Figure 34: The conceptual mapping of *froze* metaphor

The source domain and the target domain share some similar information. Both share the properties of being liquid and have the feature of changing state. Those common properties are mapped to form the metaphor of *froze*.

4.4. The Analysis of Scene Two

In the evening in the castle, Scene Two takes place. This scene includes many dynamic actions that takes place between three characters: Teabing, Sophie, and Silas. Teabing and Sophie are at gunpoint by Silas (the albino), who orders them to hand him the keystone. While Teabing struggles with his crutches, he drops the keystone on the ground; and Silas lunges to save the stone. In the meantime, one of the Teabing's crutches hits Silas's leg. As Silas collapses to his right, his gun releases a bullet into the wall.

Since it consists of various schematic components of dynamic scenes, Scene Two will be analyzed using scene-building model.

4.4.1. Scene-building Model of Scene Two

In this part of the analysis, the study will focus on the fundamental schematic components that make up the dynamic scene. To apply the scene-building model, Scene Two is divided into three hierarchical levels, those are MAS, MISs, and NASs. In each level, the two main schematic categories (schematization and individuation) are applied to see how scenes and actions involved in Scene Two are arranged. As a result, the study identifies the next three sections to analyze Scene Two in terms of this division.

4.4.1.1. Macro Scene

The MAS plays a crucial role in drawing the readers' mental picture. This means that we can understand and draw the scene in our minds through the main actions in that scene and their relationship with each other. In other words, understanding the levels of containment, the main moving entities that affect the actions of the scene, the forms of movements, and the geometrical structures help conceptualizing a holistic picture of the scene.

Through the application of *causative transitionality*, Scene Two is divided into two parts. Each part consists of a group of related actions (or MIS) that are headed or motivated by an animate stimulator. The two parts are summarized as follows:

1. *Teabing slipped out of his right hand, causing his crutch to slip. He began to topple sideways to his right, and then his left hand swung backward. The stone tumbled from his palm.*

2. *Silas stepped quickly forward to take the stone, lowering his weapon in the process. The pistol discharged with a deafening roar, the bullet burying itself harmlessly in the floorboards as Silas fell. At the same time, the Teabing's metal crutch hits Silas' leg. Splinters of pain tore up Silas's body. Buckling, Silas crumpled to his knees, causing the belt to cut deeper still.*

These two major parts are arranged sequentially in the way that the mental image of the scene as a whole is obvious. The type of causality used in this scene is *multi-causative relations*, since it takes place between two animate stimulators, Teabing and Silas, who are the responsible for all the actions happened in this MAS.

In the first part of this MAS, Teabing stimulates his right to slip which causes his crutch to slip as well. Slipping his crutch leads to lose his balance which gives rise to swing his left hand backward. Finally, this causes the fall of the stone from his palm.

In the second part, Silas becomes the stimulator who quickly ran forward to get the stone. This causes two actions: lowering his weapon and hitting his leg with Teabing's metal crutch. The action of lowering the weapon leads to the pistol firing action which causes the bullet to be buried in the floorboards. The second action that comes from Silas' rush toward the sone is that the Teabing's metal crutch hits his leg, causing severe pain in his body. Lastly, this pain causes Silas to buckle and wrinkle on his knees. The causative relations between these scenes are clarified in Table 5:

Table 5: The causative transitionality of Scene Two

Causer	Result
Teabing slipped his right hand	The crutch slid out from under him
The crutch slid out from under him	Teabing began to topple sideways to his right.
Teabing began to topple sideways to his right.	his left hand swung backward
his left hand swung backward	the cylinder tumbled from his palm
the cylinder tumbled from his palm	Silas stepped quickly forward to take the stone
Silas stepped quickly forward to take the stone	lowering his weapon in the process.
lowering his weapon in the process.	The pistol discharged with a deafening roar,
The pistol discharged with a deafening roar,	the bullet burying itself harmlessly in the floorboards as Silas fell.
Silas stepped quickly forward to take the stone	the Teabing's metal crutch hits Silas' leg
the Teabing's metal crutch hits Silas's leg.	Splinters of pain tore up Silas's body
Splinters of pain tore up Silas's body	Buckling, Silas crumpled to his knees
Buckling, Silas crumpled to his knees	causing the belt to cut deeper still.

As shown above in Table 5, each scene represents a causer for another scene which represents a result to the causer. The result, then, becomes a causer for another result and so on, until the causal chain completes in the scene. In other words, the occurrence of the second scene (the result

172

scene) is wholly dependent on the occurrence of the first scene (i.e., the caused scene).

In respect of individuation, the MAS two consists of a lot of entities and actions which are internally segregated in terms of plexity, boundedness, and dividedness. Table 6 summarizes these structures with respect to the domains of matter and action.

Table 6: The schematic individuation of Scene Two

	Discrete	**Continuous**	
Multiplex	**Action:** shifting, swung	**Action:** inching, bleeding, run down, keeping, moving away	**Unbounded**
	Matter: feet	**Matter:** blood, Splinters	
	crutches, floorboards, barbs, knees		**Bounded**
Uniplex	**Matter:** gun, ankle, hand, cylinder, crutch, head, stone, weapon, man, palm, body, pistol, bullet, jaw	**Matter:**	
	Action: nodding,	**Action:** slipped, grasped, lurching, stood, palming, leaning, closed to, stepped, lost, slid out, to topple, lunged, lowering, fell, tumbled, crumpled, discharged, burying, raise	

Although the general scene takes an important role in drawing the mental image of the scene as a whole, it is important to go into details and

analyze the MISs elaborately to see how they are arranged and related to each other.

4.4.1.2. Micro Scene

To partition the MAS two into smaller scene, a group of MISs are selected to be analyzed. Each MIS involves a combination of schematic components that affect the VA of a scene. That is these MISs play a vital role in building and arranging the scene as a whole. By way of analysis, nine MISs are picked out to be analyzed in terms of scene-building model, as elaborated below.

MIS^2-i: *Teabing slipped his right hand through one of his crutches and grasped the keystone in his left.*

The motion used in this MIS is represented in the verb 'slipped'. Teabing's right hand is the animate mover that is forced by Teabing to move. Since the mover is forced to move, so this kind of action is described as PROPEL; and since the mover is actually moved, then the action becomes PTRANS. In terms of geometrical structure, the source of motion is one of the Teabing's crutches. However, the goal where the mover reaches can be understood in the following MISs (See MIS^2-vii). That is, the crutch slipped from under Teabing and spewed through the air toward Silas' leg. The movement of slipping his hand can be described as downward in the sense that it is up-down form of motion. The transfer of the mover can be expressed in the following way:

> **Mover *{Teabing's right hand}* PROPEL => PTRANS from P^1 *{one of the Teabing's crutches}* to P^2 *{Silas' leg}***

The spatial preposition used to express the containment schema of this scene is 'through'. That is, the container entity is the crutch and the contained is Teabing's right hand.

The relationship between the objects of the scene and other scenes can be causatively described. This occurs when the stimulator is represented by Teabing who motivates his right hand to cause the action of 'slid out'. The crutch is depicted as the causee which is slipped from Teabing's his right hand. This leads to the result that the crutch slid out from under his leg (see MIS^2-iii). The causality of that scene can be shown as follows:

> ➢ **Stimulator (*Teabing*) → Causer (*his right hand*) → caused (*slid out*) → causee (*the crutch*) → result (*the crutch slid out from under his leg*)**

The actions 'slipped' and 'grasped' have uniplex, bounded and continuous structures because they are punctual, perfective and indivisible verbs. In the domain of space, by contrast, the objects 'hand' and 'keystone' are uniplex due to their singularity, while the entity 'the crutches' is seen as multiplex. Finally, the three objects are categorized as bounded and discrete because they all are mass and divisible nouns.

MIS^2-ii: *The monk closed to within a few feet, keeping the gun aimed directly at Teabing's head.*

The mover of the 'closed' and 'keeping' actions is the monk (Silas). Both actions complete each other and arrange sequentially. Namely, the source of motion is Silas' location and the destination is Teabing's head. In both actions, the type of schematic transition is PTRANS in which the mover voluntarily transfers from P1 into P2 without being another force compelling him to move. This geometrical motion can be clarified in this structure:

➢ **Mover** *{Silas}* **=> PTRANS from P^1** *{his location}* **to P^2** *{Teabing's head}*

The physical forms of motion involved in the 'closed' and 'keeping' actions which is categorized as convergent in the form of horizontal direction.

With regard to causality, there is a causative transitionality of stimulator from Teabing to Silas who also acts as the causer of the action. The gun can also act as a second causer. The causee is illustrated by Teabing's head. The caused actions are 'closed' and 'keeping' which give rise to the result 'the gun aimed directly at Teabing's head'.

➢ **Stimulator/Causer^1 (***Silas***) → Causer^2 (***the gun***) → caused (***closed and keeping***) → causee (***Teabing's head***) → result (***the gun aimed directly at Teabing's head***)**

The words 'monk', 'gun', and 'head', and the verb 'closed' used in this MIS have the features of uniplexity. This is because they are singular and countable nouns, and punctual and completed action. The three nouns are regarded as discrete entities in the sense that they can be parted into smaller fragments, while the verbs 'closed' and 'aimed' are both continuous actions that have no internal interruptions. Although the word 'feet' is treated as bounded entity that has an edge, it is multiplex because it is plural noun. However, the action 'keeping the gun aimed' are multiplex and bounded because it denotes progression and completion.

MIS^2-iii: *Silas stepped quickly forward to take the stone, and as he did, the man on crutches lost his balance.*

The movable action recognized in this MIS is 'stepped'. The agent of this action is Silas who is conceptualized as the animate mover. Silas is forced

to move as he rushed to pick up the stone that fell from Teabing's hand. In other words, it was the action of 'the stone fall' that forced Silas to move. Therefore, the action is classified as PROPEL which gives rise to PTRANS. It leads to PTRANS because there is a physical factive transfer of the object (i.e., Silas) from the source location which stands for his position toward the stone which represents the goal of motion. This transfer can be formulated as follows:

> **Mover** *{Silas}* **PROPEL => PTRANS from P^1** *{his position}* **to P^2** *{the stone}*

The motion of stepping is described horizontally as a directional movement. This can linguistically be reflected through the use of the adjective 'forward'. Moreover, using such adjective also indicates that the relationship between the mover and the target entity is contained in terms of linearity, i.e., the entity is on a straight line.

Causatively, the first stimulator of that scene is Silas who also entrains the caused action of 'stepping'. On the other hand, the stone is depicted as the causee that undergoes the action, and simultaneously employs as its result. As Silas lungs toward the stone, his leg is injured by Teabing's crutch (This can be realized in MIS^2-vii). This means that the result of the 'lunged' action is that the Teabing's metal crutch hits Silas' leg. This causative relation can be translated as follows:

> **Stimulator/Causer (*Silas*) → caused (*stepping*) → causee (*the stone*) → result (*the Teabing's metal crutch hits Silas' leg*)**

In terms of individuation, uniplexity is found in the entities 'Silas', 'stone', and 'man' because of their singularity; while the word 'crutches' is multiplex due to its plurality. All the nouns mentioned (i.e., Silas,

stone, man, and crutches) are considered as bounded objects. This means that we can realize their boundaries. They are also discrete entities because they can be segregated into smaller ones. Relating to the domain of time, however, the verbs 'stepped' and 'lost' have uniplex, bounded and continuous constructions.

MIS^2-iv: *The crutch slid out from under him, and he began to topple sideways to his right.*

In the action of 'sliding out', the mover is the crutch who is classified as the inanimate mover. The mover is stimulated by Teabing who struggles with his crutches, toppling sideways to his right. Teabing's hand (see MIS^2-i), under which the crutch slipped, is the source of the movement. Since the crutch hits Silas' leg (as shown in MIS^2-vii), his leg becomes the goal of the mover.

In both actions, the type of schematic transition is PROPEL, leading to PTRANS. It is PROPEL because the crutch is forced by Teabing to move in the action of 'slide out', and that's why also, Teabing is compelled to stoop on his right. The type of motion used in this scene is factive, as there is a real transition from p^1 to p^2. In 'sliding out' action, the movement is formed vertically as up-down. This can be illustrated in the following formula:

> ➤ **Mover *{the crutch}* PROPEL => PTRANS from P^1 *{Teabing's hand}* to P^2 *{Silas' leg}***

Teabing's hand is in contact with the crutch. As a result, the crutch represents the surface to his hand. In other words, the crutch is the container and his hand is the contained entity.

The causative relation of the 'slide out' action involves four elements. Some of them are explicit and others are implicit, logically determined. In sum, Teabing is the stimulator who motivates the crutch to slide out; the causee is his hand from which the crutch slipped; and the result is that Teabing began to topple sideways to his right, as shown in the following pattern:

➢ **Stimulator (*Teabing*) → Causer (*the crutch*) → caused (*slid out*) → causee (*Teabing's hand*) → result (*Teabing began to topple sideways to his right*)**

However, Teabing is the animate mover of the action 'topple'. The form of movement depicted in this scene is the directionality, which is linguistically represented through the use of the prepositional phrase 'to his right'. This horizontally directional movement leads to another movement that forms the curved motion of the object, that is the trajectory movement. The geometrical structure of this motion begins where Teabing was standing before sliding off his crutch. The motion goal, on the other hand, is the point that the mover reaches, which is indicated by his right. The schematic structure of this scene can be summarized as follows:

➢ **Mover *{Teabing}* PROPEL => PTRANS from P^1 *{Teabing's position}* to P^2 *{his right}***

There is a causative relationship between the action of 'slid out' in this MIS and 'swung backward' in MIS^2-v. Namely, the 'slid out' action causes the swung backward. The stimulator, is Teabing who is also conceived as the entity that undergoes the caused verb 'topple', which give rise to the result of 'his left hand swung backward', as shown in the following configuration:

> **Stimulator** (*Teabing*) → **Causer** (*sliding out the crutch*) → **caused** (*to topple*) → **causee** (*Teabing*) → **result** (*his left hand swung backward*)

Only one object is used in this MIS, which is the crutch. This noun is classified as uniplex, bounded and discrete. This is due to the fact that it is singular and countable noun, in addition to its compositionality. In the domain of time, the actions 'slid out' and 'topple' are uniplex because they are punctual verbs; bounded because of their momentary structures; and continuous because they have no internal interruptions.

MIS^2-v: *No! Silas lunged to save the stone, lowering his weapon in the process.*

This MIS also consists of two actions, 'lunged' and 'lowering'. In the former, the type of action is PROPEL. Because MIS^2-i (i.e., the man on crutches lost his balance) is what forced Silas to lung toward the stone to save it. The action becomes PTRANS when the animate mover (i.e., Silas) physically moves from his position toward the stone which is in Teabing's hand. Horizontally, Silas lunged forward in the directional movement. The sequential schematic components of this MIS can be structured as follows:

> **Mover *{Silas}* PROPEL => PTRANS from P^1 *{Silas's position}* to P^2 *{the stone}*

Silas and the stone are on a straight line. This means that the containment schema used in this scene is linearity. In addition, this scene can also be described in terms of contained and container when we conceptualize the stone and its carrier. In other words, the stone is contained and Teabing is the container entity.

In MIS²-iv, there is a causative transitionality from Teabing, as a stimulator in MIS²-iii, to Silas in this MIS. The stimulator and the causer of 'lunged' action is Silas. The stone is conceived as the causee of the action. The causer and the causee are joined by the caused verb 'lunged' which gives rise to the result of lowering his weapon, as represented like so:

➤ **Stimulator/Causer (*Silas*) → caused (*lunged*) → causee (*the stone*) → result (*lowering his weapon*)**

In the second part of this MIS, the mover is the Silas' hand. Silas coerced his hand to move downward. Accordingly, PROPEL is the schematic transition of the action 'lowering' which leads to PTRANS schema. The motion physically starts from the point where Silas aimed his weapon at Teabing's head and the goal is the point where the weapon is fallen down. As such, the form of movement is vertically up-down. The motion of 'lowering' his weapon can be demonstrated as follows:

➤ **Mover *{Silas' hand}* PROPEL => PTRANS from P^1 *{the point where Silas aimed his weapon}* to P^2 *{the weapon falling down}***

In this MIS, there are two containers where the weapon is within both: Silas (macro container) and Silas' hand (micro container). That is, whenever the containers (i.e., Silas and his hand) move, the content entity (i.e., the weapon) moves with them as well.

The stimulator is Silas who causes his hand to move down. The causee is the weapon that undergoes the action of 'lowering'. This action leads to the result of 'the pistol discharged with a deafening roar' (see MIS²-ix). This process can be construed by the next scheme:

> ➢ **Stimulator (*Silas*) → Causer (*his hand*) → caused (*lowering*) → causee (*the weapon*) → result (*The pistol discharged with a deafening roar*)**

The verb 'lunged' is uniplex and bounded because of its semelfactive and completed nature, while 'lowering' is multiplex and unbounded because it denotes a period of time and progression. On the other hand, both verbs are treated as continuous actions that have no internal segregations.

MIS²-vi: *As the man fell to his right, his left hand swung backward, and the cylinder tumbled from his palm onto the couch.*

Three actions are used in this MIS, they are 'fell', 'swung' and 'tumbled'. The first one is described as a factive PROPEL action in which the animate mover (viz., the man, Teabing) moves from where he stands to the right. Because of this physical transition, the action of PTRANS takes place. The verb 'fell' refers to the vertical axis of movement, and thus, it has the up-down vertical form of movement. The following formula summarizes the sequential schematic elements of the 'fell' action.

> ➢ **Mover *{the man}* PROPEL => PTRANS from P¹ *{his location}* to P² *{his right}***

The man's fall to the right indicates that the ground is the container and he is the contained entity. Besides, the surface schema can be applied in this scene in which the ground is considered the surface on which the man fell.

Causatively, the man is the stimulator, the slipping of the crutch is the causer, and his right is the causee on which the action occurs. The verb 'fell' has the causative relation which produce the result of falling to his right. This can be formulated in the following structure:

> **Stimulator** (*the man*) → **Causer** (*slipping of the crutch*) → caused (*fell*) → causee (*his right*) → result (*his fall to the right*)

With reference to the action of 'swung', Teabing's left hand is the mover that is forced to move backward. As a result, PROPEL action is used to depict the scene; and because of there is a physical movement, the action is shifted to PTRANS. Geometrically, the motion starts from Teabing's location toward his backward in two forms: vertically from top to bottom and trajectory like arc (See Figure 39). The geometrical transition of the mover is represented in the following way:

> **Mover *{Teabing's left hand}* PROPEL => PTRANS from P^1 *{his location}* to P^2 *{backward}***

In terms of causative construction, the stimulator of this scene (the man) is also conceptualized as the causer who motivates the action of 'swinging' and causes his left hand to swing. The result is the tumbling of the cylinder from the man's palm. This relation is shown as follows:

> **Stimulator/Causer** (*the man*) → caused (*swung*) → causee (*his left hand*) → result (*the tumbling of the cylinder from the man's palm*)

Finally, the action of 'tumbled' is characterized as PROPEL which gives rise to PTRANS. Since there is a physical transfer. The inanimate mover, the cylinder, shifts from Teabing's palm (as the source of motion) to the couch which points to its goal. The process of tumbling the cylinder from his palm has the form of directional diverging. The following formula illustrates this transfer:

> **Mover *{the cylinder}* PROPEL => PTRANS from P^1 *{Teabing's palm}* to P^2 *{the couch}***

The relationship between the cylinder and Teabing's palm can be explained through the concept of containment. This means that this scene can be analyzed with two types of containment: contained and container, and in-out schemas. In other words, the cylinder is the contained and his palm is the container entity from which the contained entity tumbled. Therefore, the TR (i.e., the cylinder) goes out from inside to outside of the LM (i.e., his palm). After tumbling it from Teabing's palm onto the couch, the couch becomes its container. This can schematically be diagrammed as follows:
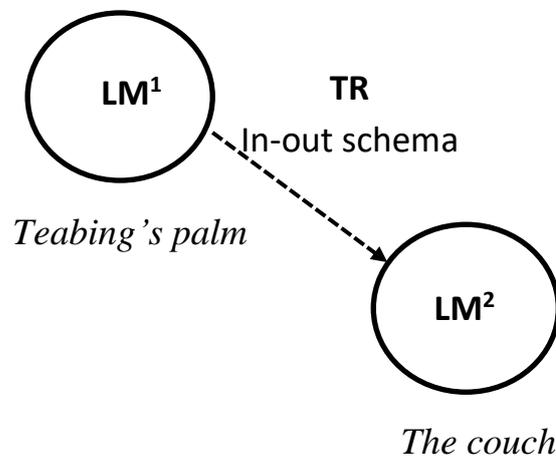
Figure 35: The containment schema of *the stone*

The LM^1 stands for Teabing's palm from which the TR (the stone) leaves in the form of in-out to locate in the LM^2.

What makes the cylinder moves is Teabing. Thus, he is the stimulator, and the swinging backward of his left hand causes the 'tumbled' action. The object that undergoes the action is the cylinder. The result is that the cylinder is now out of his palm. This relation can be clarified in the following formula:

- **Stimulator** (*Teabing*) → **Causer** (*the swinging backward of his left hand*) → **caused** (*tumbled*) → **causee** (*the cylinder*) → **result** (*the cylinder is now out of his palm*)

Concerning the conceptual quantity of this MIS, the two actions, fell and tumbled, are classified as uniplex, bounded, and continuous because they do not indicate repetition, completed and inseparable verbs. By contrast, the verb 'swung' implicitly denotes repetition, ongoingness and internal interruption. Relating to the frame of space, the nouns man, hand, cylinder, palm, and couch have uniplex, bounded, and discrete structures.

MIS²-vii: *At the same instant, the metal crutch that had been sliding out from under the man seemed to accelerate, cutting a wide arc through the air toward Silas's leg.*

This MIS consists of two actions: 'sliding out' and 'cutting'. The first action has already been analyzed in MIS²-iv. The mover of the second action is the crutch that movers from under Teabing's leg toward Silas's leg. The action is PROPEL in the sense that the mover is a subject to external coercion by Teabing and this leads to change the type of action from PROPEL to PTRANS, as represented in the following way:

- **Mover *{the crutch}* PROPEL => PTRANS from P¹ *{Teabing's leg}* to P² *{Silas's leg}***

This transfer from P^1 to P^2 takes the form of trajectory movement and this can be shown in the metaphorical expression of a wide arc. In addition, the form of vertical movement can also be used to describe this transfer in which the mover takes the form of going up and then down. Since there is a transfer from Teabing's leg toward Silas's leg, the out-in schema of

containment can be applicable. Hence, the crutch is the TR and the LM is represented by Silas's leg.

In this MIS, Teabing triggers the crutch to wag, causing the action of 'cutting it through the air'. Silas's leg is depicted as the causee to which the action occurred. The result is that Splinters of pain tore up Silas's leg, as shown in the following causative construction:

> **Stimulator (*Teabing*) → Causer (*the crutch*) → caused (*cutting*) → causee (*Silas's leg*) → result (*Splinters of pain tore up Silas's leg*)**

MIS²-viii: *Buckling, Silas crumpled to his knees, causing the belt to cut deeper still.*

Because the crutch hits Silas's leg, he is forced to buckle to his knees. This means that the action 'crumpled' in this MIS is classified as PROPEL, leading to PTRANS. Both actions 'buckling' and 'crumpled' have the same schematic elements, that is, the same mover, type of schematic transition, geometrical structure and causative structure. In both, the mover is Silas which moves from a standing position to a crumpled position. However, 'buckling' and 'crumpled' actions have different forms of movements. The former is conceptualized as a trajectory motion similar to an arc, whilst the latter is conceived as a vertical movement in the form of up-down. The geometrical movement of the mover is summarized as follows:

> **Mover *{Silas}* PROPEL => PTRANS from P¹ *{standing position}* to P² *{his knees}***

In both actions, the stimulator is the same as the causer, viz., Silas. The causer is his knees that suffer the caused actions of 'buckling' and 'crumpled'. The result is the action of causing the belt to cut deeper still. The four elements of the causative structure related to this MIS is comigrated in the present way:

> **Stimulator/Causer (*Silas*) → caused (*buckling and crumpled*) → causee (*his knee*) → result (*causing the belt to cut deeper still*)**

The two verbs are considered as punctual, completed and indivisible. Therefore, they have uniplex, bounded and continuous structures. Since it is plural, the object 'the knees' is treated as multiplex. But it is bounded and discrete entity.

MIS^2-ix: *The pistol discharged with a deafening roar, the bullet burying itself harmlessly in the floorboards as Silas fell.*

This MIS also involves two actions, they are 'discharged' and 'burying'. The mover for both is the bullet which is factually fired from the pistol toward the floorboards. While Silas was lunging to save the stone, he lowered his weapon. As a result, the pistol fired the bullet to be lodged in the floorboards. This means that PROPEL action is shifted to PTRANS when this transfer occurs. The movement of the mover takes a horizontal form toward the front, i.e., forward direction. This motion can be organized as follows:

Mover *{the bullet}* PROPEL => PTRANS from P^1 *{the pistol}* to P^2 *{the floorboards}*

In respect of containment structure, linearity and out-in schemas can be applicable. That is, the motion of the bullet from the pistol to the

floorboards is on a straight line. In addition, the TR (the bullet) spatially leaves the boundary of the container (the pistol) which is described as the LM to lodge inside the floorboards.

Concerning the causative structure of this scene, the pistol and the bullet are both the causers that are motivated by Silas to fire. The object 'the floorboards' is the causee that gets the action. The MIS consists two caused verbs that arranged sequentially. That is, the pistol firstly discharged, then the bullet buried itself in the floorboards. The second causative relation is regarded as the result scene. This can be illustrated in the following way:

> **Stimulator (*Silas*) → Causer[1] (*the pistol*) → Causer[2] (*the bullet*) → caused (*discharged and burying*) → causee (*the floorboards*) → result (*the bullet buried itself in the floorboards*)**

With regard to the schematic individuation, uniplex can be realized in entities like pistol and bullet because they are singular, while the word 'floorboards' is multiplex as a consequence of its plurality. The three objects pistol, bullet, and floorboards are bounded, since they have inherent boundaries. they are also discrete entities because they can be divided into smaller parts. In accordance with the domain of time, the verbs 'discharged', 'burying' and 'fell' have uniplex, bounded and continuous structures due to their punctual, completed and inseparable features.

4.4.1.3. Nano Scenes

NAS level of analysis concerns with segmenting single MIS into smaller indivisible conceptual scenes that are logically determined. Due to limited time, the study randomly selects three MISs to show their implied NASs:

NAS²-i: *The crutch slid out from under him, and he began to topple sideways to his right.*

This scene has six conceptual NASs that are arranged in the way that cannot shift in their order as follows:

 a. *Teabing stood on his crutch.*

 b. *His hand slipped off the crutch.*

 c. *The crutch slid out from under him.*

 d. *The crutch fell.*

 e. *Teabing leaned sideways.*

 f. *He fell to his right.*

The mental image will become vague or incomprehensible if we rearrange these scenes or remove one of them. While Teabing is standing on his crutch (a), his crutch slides from under him (c), and this cannot happen unless his hand sliding first (b). Furthermore, falling off the crutch (d) causes Teabing to bend (e) and fall (f).

NAS²-ii: *No! Silas lunged to save the stone, lowering his weapon in the process.*

The scene is made up four implicit conceptual spatiotemporal NASs that are logically construed, they are:

 a. *Silas stood somewhere.*

 b. *He held a weapon.*

 c. *He lunged to take the stone.*

 d. *He lowered his weapon.*

These NASs are sequentially arranged, although the actions of 'lunged' and 'lowered' happen concurrently. Silas is the protagonist of this MIS. The story started with two static NASs when Silas stood somewhere (a), holding a weapon in his hand (b). When the stone fell from the Teabing's hand, he lunged to keep the stone (c). At the same time, he lowered the weapon (d). The combination of these four NASs is considered as a core to understand the higher level of NAS^2-ii.

NAS^2-iii: *Buckling, Silas crumpled to his knees, causing the belt to cut deeper still.*

This scene has broken down into five related NASs which are indivisible, primitive scenes. They are:

a. *Silas stood somewhere near Teabing.*

b. *The crutch hit his leg.*

c. *He buckled.*

d. *He crumpled to his knees.*

e. *This made the belt cut his flesh shredding.*

In these NASs, Silas is also described as the maker. The combination of those conceptual motions configurates their larger scene (MIS). The scene starts with the summary picture of standing Silas near Teabing (a). While Silas was lunging to take the stone, the crutch that had been sliding out from under Teabing hits Silas' leg (b). as a result, he buckled (c) and crumpled (d) to his knees. Finally, these two actions cause the belt to cut his flesh deeper.

4.4.2. Construalization of Scene Two

4.4.2.1. Saliency

Saliency concerns with the distribution of attention over the scenes or parts of a scene. This distribution is governed by a group of processes that affect the VA of scenes in the sense that the elements that have the most prominence are superior to those that have the least prominence in a scene or between the scenes. The more prominent elements are more important and more influential on the VA of the scene than the other elements.

In Scene Two, the writer focuses the attention on some elements of the scene, making them onstage. Among these onstage entities are the participants (Teabing and Silas), the stone or the cylinder, the crutch, the pistol and the bullet, and other entities that are being clearly perceivable by the readers. However, a lot of entities which are part of the spatial location of the scene are suppressed by the writer because they are irrelevant to the sequential VA of the scene.

One of the linguistic aspects used to foreground and background some elements of a scene is figure-ground alignment. The writer selects some entities to be foregrounded in comparison to the ground entities that are backgrounded. Consider the following extract scene:

1. *Teabing slipped his right hand through one of his crutches and grasped the keystone in his left.*

2. *The crutch slid out from under him, and he began to topple sideways to his right.*

In scene (1), the figure is Teabing and the ground is his crutches, since the former is more movable. As we tend to focus our attention on the

movable aspects of a scene, Teabing in scene (1) carries the prominent part of the scene, and the crutch has less prominent. Unlike scene (1), Teabing is conceptualized as the ground in scene (2), whereas the figure is the crutch which is conceived as moving entity. Therefore, the attention is focused on the crutch, more than on Teabing.

Similarly, the following two scenes have inverted figure and ground distinction:

3. *No! Silas lunged to save the stone, lowering his weapon in the process.*

4. *But the keystone was moving away from him now.*

In scene (3), Silas carries the focus of attention since it is conceptualized as the figure and the stone the ground. In comparison, Silas in scene (4) has somewhat a stationary location from which the figure, the keystone moves away. In other words, Silas has less attention than the keystone. This can be shown in Figure 36 and Figure 37:
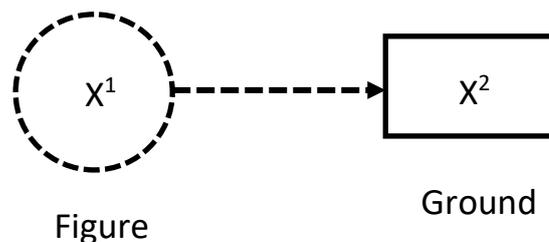
Figure 36: The figure-ground representation of *Silas lunged to save the stone* scene

The dashed circle refers to the figure that has the moving feature, and the square to the ground entity. The dashed arrow indicates the form of movement. The entity X^1 is used to refer to Silas, whilst X^2 to the stone. The diagram shows that Silas, as the moving entity, lungs toward the

stone which is somewhat stationary. The focus of attention is on the movable entity, rather than the ground.
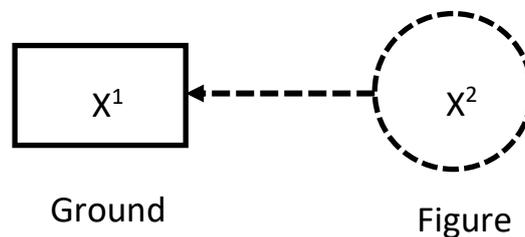
Figure 37: The figure-ground representation *the keystone was moving away from him now* scene

The focus of attention has shifted when the stone becomes the figure, having the moving characteristic, and Silas the ground. The stone holds the focus because it is that entity that moves away from Silas.

Another aspect of saliency is the process of zooming. Narrowing the scope is used by the writer when he narrows the scope, starting successively from the most general scope (i.e., Silas' body) to specific scope (his fresh), as indicated in (5):

5. *Splinters of pain tore up Silas's <u>body</u> as the crutch made perfect contact with his cilice, crushing the barbs into his already raw <u>flesh</u>.*

In this scene, the writer describes Silas' pain, zooming from his body to his flesh. The lexical concept that the writer finally arrives at (viz., flesh) holds the most scope of attention, while the most general concept (the body) holds less attention.

The grammatical organization of a scene also plays a fundamental role to foreground some entities over others. In different situations, the writer introduces one action to another. This is because they relate to the sequential relationship of actions that are happened later in time; or those

that are occurred at an earlier time: before and after. Consider the following scenes:

6. *Lurching to his feet, he stood erect, palming the heavy cylinder in his left hand, and leaning unsteadily on his crutch with his right.*

7. *As the man fell to his right, his left hand swung backward, and the cylinder tumbled from his palm onto the couch.*

8. *Buckling, Silas crumpled to his knees, causing the belt to cut deeper still.*

In (6), Teabing lurched before he stood erect, the action of 'falling' in (7) also happened before swinging, and buckling before crumpling. The three actions of lurching, falling, and buckling get the highest concentration. That is, the grammatical organization of actions occurs in the sequential order.

4.4.2.2. Perspective

Dan Brown and we, as the viewers of the scene, construe it objectively. The linguistic aspects and the spatial setting used in this scene can determine the viewpoint. The writer depicts the scene from Silas' viewpoint: as if the viewing angle (the camera) is from Silas' side and in the direction of Teabing. For instance, the use of the adjective 'forward' in scene (9) indicates that the writer construes a scene in the way that the stone is in front of Silas who steps quickly to take it. This means that the viewpoint is directed toward the stone, as diagrammed in Figure 38:

9. *Silas stepped quickly forward to take the stone, and as he did, the man on crutches lost his balance.*

Perspective viewpoint
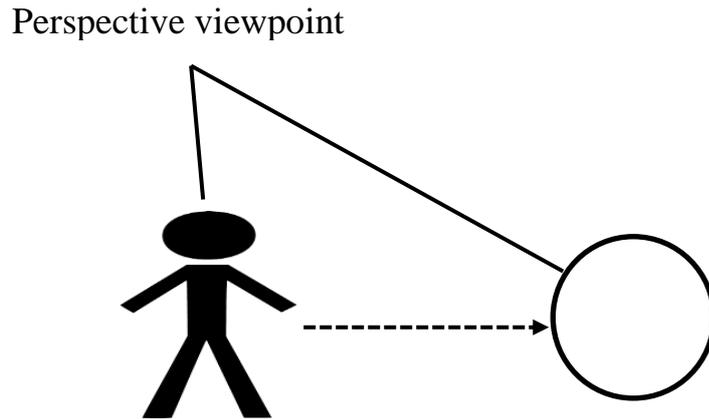
Figure 38: The viewpoint of the scene *Silas stepped quickly forward*

The dashed arrow refers to the Silas' motion toward the stone that Teabing holds and is symbolized by circle. The angle of view, as indicated in diagram, is forward toward the stone. Such viewpoint has a sequential mode, that is, a motion perspective.

In scene (7), although the direction of movement is different from (9), the viewpoint is still from Silas' side. This can be linguistically reflected in the use of the word 'backward', as shown in the following diagram:

Perspective viewpoint
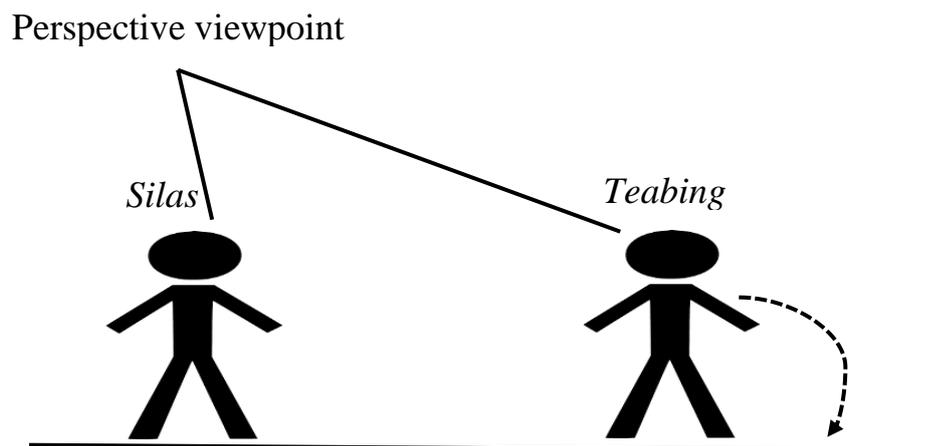
Silas   *Teabing*

Figure 39: The viewpoint of the scene *his left hand swung backward*

The fall of Teabing's hand (indicated by dashed arc) is construed from Silas' vantage point', i.e., the writer depicts the scene from behind.

In scene (2) above, the preposition 'under' indicates that the writer focuses his oriented vantage point from the top. The spatial deictic expressions, such as 'away' in scene (4) and 'a few feet' in scene (10), can also contribute to identifying the viewpoint of the scene. The adverb 'away' refers to the idea that the stone which is moving away from Silas is in front of him. Similarly, the expression 'a few feet' in (10) indicates that Silas is approaching Teabing.

10. *The monk closed to within a few feet, keeping the gun aimed directly at Teabing's head.*

In short, the angle of view is on Silas' side, and whenever the mover moves, the construal perspective changes.

4.4.2.3. Judgement and Comparison

Comparison is another construal operation used in Scene Two. The writer uses different aspects of comparison to compare a particular entity with another. One of these aspects is 'framing' which concerns with the categarizing of different entities within the same domain. For instance, the entities 'the weapon', 'the gun', 'the pistol' and 'the bullet' are used in different scenes to refer to the same tool (As shown in MIS^2-ii, v, and ix). All these linguistic units cannot be understood without being shared knowledge related to the domain of weapons.

The scene also consists of different dynamic metaphors, such as:

11. *At the same instant, the metal crutch that had been sliding out from under the man seemed to accelerate, <u>cutting</u> a wide arc through the air toward Silas's leg.*

12. *Buckling, Silas <u>crumpled</u> to his knees, causing the belt to cut deeper still.*

13. *Splinters of pain <u>tore up</u> Silas's body as the crutch made perfect contact with his cilice*

In (11), the action 'cutting' is metaphorically used to refer to the process of the transfer of the crutch from under Teabing to Silas. This transfer slits the air as if it is a knife. In (12), the verb 'crumple' is used with an animate object, as with a sheet that undergoes disordered deformation. However, it is used here to refer to Silas' collapse after being struck by the crutch. Finally, the action 'tore up' is used exaggeratedly to refer to the intensity of the pain, as if the pain tore through Silas' body like a sheet of paper.

4.5. The Analysis of Scene Three

Scene Three preserves the main elements used to define a scene: time, place, participants, and theme. The scene takes place early in the morning at Biggin Hill Airport. The scene includes several participants, among them Teabing, his servant Rémy, his passengers (Langdon and Sophie), the pilot of the jet, Simon Edwards (the manager of Biggin Hill Airport), and the police.

The scene's plot is that the police and Edwards are waiting for the jet onto the runway. Unexpectedly, the jet lands at Teabing's hangar, which was not part of the plan. When the police deploy in the hangar, Teabing emerges in the doorway and descends down the stairs. The police search the jet, but they find nobody. Teabing has cleverly concealed his passengers in the parked limousine, before the police arrived.

Under analysis, the dynamic scenes are extracted to be analyzed to be analyzed in terms of the model developed in Chapter Three. To analyze the schematic components of the dynamic scenes, scene-building and construalization processes are tackled, as shown in the following sections.

4.5.1. Scene-building Model

Scene-building model is concerned with the partitioning the scene into smaller schematic primitive components. To see how Scene Two is structured, it is partitioned into three levels of analysis: MAS, MISs, and NASs. To do that, two categories of scene-building model are applied, schematization and individuation, which form the basic structure of a dynamic scene.

4.5.1.1. Macro Scene

MAS relates to the general idea of a scene. That is, it represents the whole mental picture. The fundamental actions and entities help understanding this mental image. Although the third scene consisted of different participants, only three topped the scene: Teabing, the pilot of the jet, and the police. Those participants are responsible for all sequential actions occurred in this scene. The most important dynamic actions that affect the motion of participants and entities in the scene are summarized in four parts.

1. *The Hawker was in the sky when its nose tipped up, and the tires touched down on the runway. The jet coasted calmly past the access lane and continued on toward Teabing's hangar. After several seconds, the fuselage door popped open, and Teabing appeared in the doorway as the plane's electronic stairs smoothly dropped down. Then, he descended down the stairs in hobbled way.*

2. *When the cars finally arrived, the police poured out, guns drawn. they streamed in, taking up positions around the jet. The Kent chief inspector stepped forward, repositioning himself to block Teabing's progress away from the plane.*

3. *Teabing and Rémy walked around the chief inspector and headed across the hangar toward the parked limousine. The chief inspector turned and aimed at Teabing's back. His men raced over, guns leveled, and physically blocked Teabing and his servant from reaching the limousine. The chief inspector gripped his sidearm and marched up the plane's gangway. Arriving at the hatch, he peered inside. After a moment, he stepped into the cabin.*

4. *Teabing's manservant opened the door at the rear of the stretch limousine. Then he walked the length of the car, climbed in behind the wheel, and gunned the engine. Policemen scattered as the Jaguar peeled out of the hangar.*

Each part is headed by one or different animate stimulators. The first part is headed by the pilot of the jet and Teabing, the second by the police and the Kent chief inspector, the third part by Teabing, Rémy and the chief inspector. And the last part is headed by Teabing's manservant. The transfer from one scene to another is governed by the process of causative transitionality in which the second scene is triggered or caused by the first one, the third by the second scene and so one. The causative transitionality of Scene Three is shown in the following table:

Table 7: The causative transitionality of Scene Three

Causer	Result
The Hawker was low in the sky now	The Hawker's nose tipped up, and the tires touched down on the runway
The Hawker's nose tipped up, and the tires touched down on the runway	The jet coasted calmly past the access lane and continued on toward Teabing's hangar in the distance.
The jet coasted calmly past the access lane and continued on toward Teabing's hangar in the distance.	Teabing's Hawker taxied calmly into the private hangar
Teabing's Hawker taxied calmly into the private hangar	the police poured out the cars
the police poured out the cars	guns drawn
guns drawn	The police streamed in, taking up positions around the jet
The police streamed in, taking up positions around the jet	the fuselage door popped open
the fuselage door popped open	Teabing appeared in the doorway and hobbled down the stairs
Teabing appeared in the doorway and hobbled down the stairs	Teabing is on the floor and headed across the hangar toward the parked limousine
Teabing is on the floor and headed across the hangar toward the parked	the chief inspector blocked Teabing's progress

limousine	
the chief inspector blocked Teabing's → progress	the chief inspector turned and aimed at Teabing's back
the chief inspector turned and aimed at → Teabing's back	the chief inspector gripped his sidearm and marched up the plane's gangway.
the chief inspector gripped his sidearm → and marched up the plane's gangway.	he stepped into the cabin.

Concerning the containment of Scene Three, the actions take place in Britain, specifically in Teabing's hangar, which is located within Biggin Hill Airport. All entities and participants are grouped within three levels of container. That is, Britain is conceptualized as the super container, the airport macro container, and Teabing's hangar micro container. The scene containment and participants' forms of movements are shown in Figure 40.
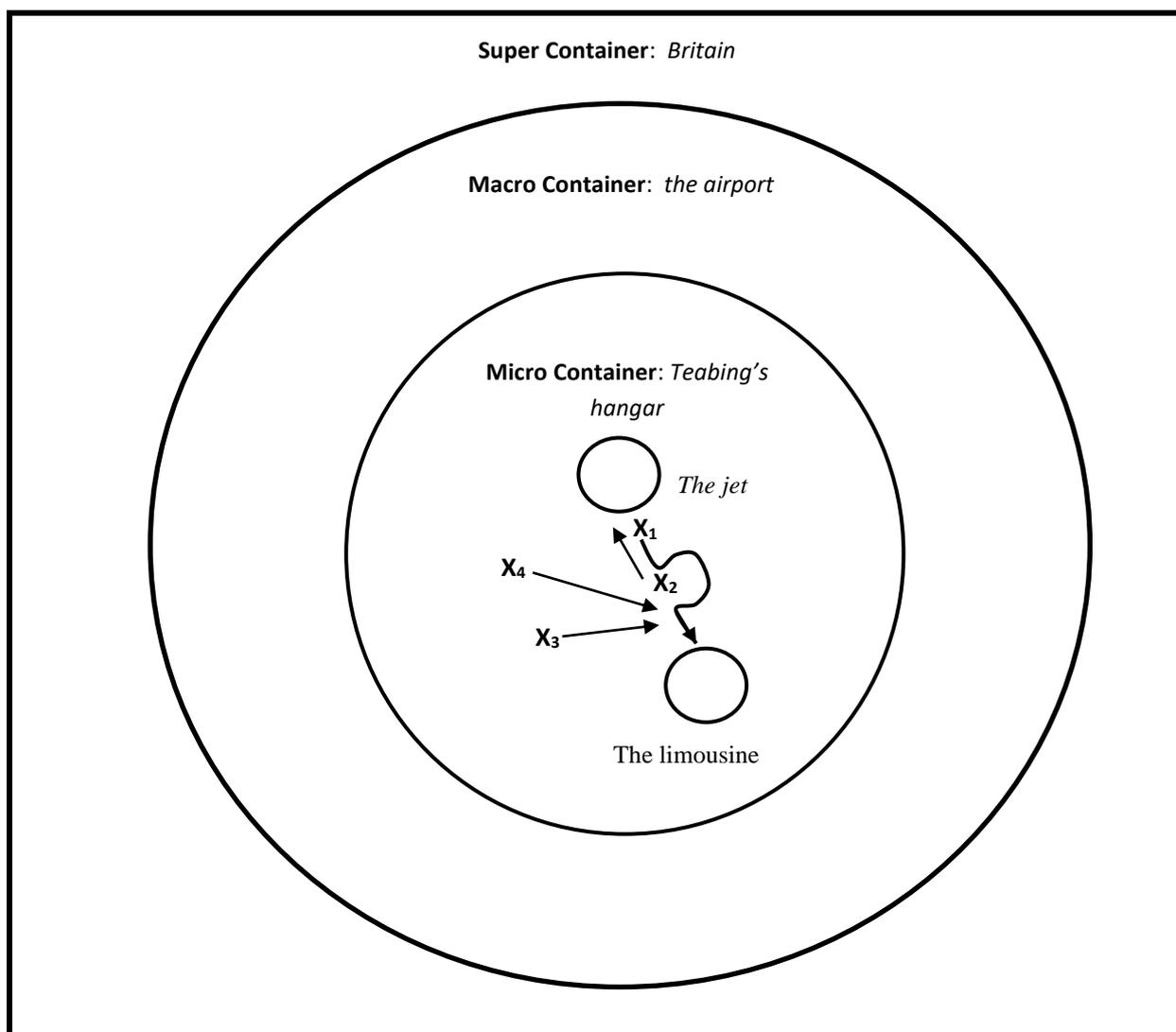
Figure 40: The container of Scene Three

To clarify, X_1 stands for Teabing and his servant, X_2 for the chief inspector, and X_3 for the police. As Teabing and his servant walked around X_2 and headed toward the limousine, X_2 and X_3 block their progress. Then, X_2 steps into the cabin of the jet.

Regarding the schematic individuation of Scene Three, the entities and actions are segmented based on the aspects of uniplexity, boundedness and dividedness. Table 8 summarizes schematic categories of individuation used in this scene.

Table 8: The schematic individuation of Scene Three

	Discrete	Continuous	
Multiplex	**Action:**	**Action:** streaking, coasted (continued on), poured, streamed in, scattered	**Unbounded**
	Matter: Police	**Matter:** sea	
	treetops, tires, cars, stairs, weapons, crutches, Policemen		**Bounded**
Uniplex	**Matter:** Hawker, runway, plane, jet, hangar, car, pilot, hatch, doorway, door, head, frog, throat, limousine, sidearm, gangway, cabin, manservant, wheel	**Matter:**	
	Action:	**Action:** skimming, streamed, touched, settled, wedged, taxied, jumped, rolled, arrived, skidded, moved, dropped, popped, scratched, drawn, stepped, swallowing, burst, walked, headed, repositioned, block, turned, aimed, hobbled, raced, leveled, gripped, marched, opened, climbed, gunned	

4.5.1.2. Micro Scenes

Scene Three has a set of sequential MISs and their combination forms its MAS. To extract the schematic components of scene-building model, eleven MISs are chosen to be analyzed, as explicated below:

MIS³-i: *The Hawker was low in the sky now, skimming the treetops to their right.*

In the action of 'skimming', the mover is the Hawker (the plane) which moves in the sky toward the right of the treetops. The motion is treated as PROPEL, since the pilot forced the Hawker to move. This physical motion causes the action of PTRANS. The downward movement takes the form of verticality in terms of up-down, due to the movement of the plane from the upper to the lower level, and this can linguistically be reflected through the use of the adjective 'low'. The geometrical movement can be translated as follows:

> ➤ **Mover *{the Hawker}* PROPEL => PTRANS from P^1 *{the sky}* to P^2 *{the right of the treetops}***

The pilot implicitly stimulates and causes the Hawker to move. The Hawker is seen as the causee that undergoes the action. The caused action is the process of 'skimming', and this results in the plane landing on the runway (As shown in MIS³-ii). The causative relation can be represented by the next construction:

Stimulator/Causer (*the pilot*) → caused (*skimming*) → causee (*the Hawker*) → result (*the plane landed on the runway*)

In terms of individuation, the word 'treetops' and the action 'skimming' have the multiplex structures, while Hawker and sky entities are uniplex.

The two entities 'sky' and 'treetops' are bounded and discrete. In the domain of time, skimming is categorized as unbounded and continuous.

MIS³-ii: *Out on the runway, the Hawker's nose tipped up, and the tires touched down in a puff of smoke.*

In this MIS, two actions can be recognized: tipped up and touched down. The Hawker's nose is recognized as the mover of the action 'tipped up', and the tires in the 'touched down' action. In both actions, the geometric structure of the movement begins by moving from the sky toward the runway, which is the goal of this movement. The vertical direction from the bottom to up is the form of the Hawker's nose movement. But the downward movement of the Hawker on the runway is from top to bottom (i.e., up-down). That is, part of the Hawker that is, its nose) was lifted up, and the tires landed down on the runway. This can be achieved linguistically by using the adverb 'down'. The verb 'touched' has also the frictional movement, since there is a resisting force that results from rubbing the tires against the runway. The schematic transition used in this MIS is PROPEL, leading to the physical transition of PTRANS action. This can be exemplified in the following formula:

> **Mover¹ *{the Hawker's nose}*, Mover² *{the tires}* PROPEL => PTRANS from P¹ *{the sky}* to P² *{the runway}***

The linguistic use of the preposition 'on' indicates that the runway is the container on which the Hawker lands. In addition, the Hawker is in contact with the surface, the runway, in the sense that the surface schema can also be applied.

Concerning the causative structure of this MIS, the pilot is conceptualized as the stimulator that motivates the Hawker's nose to tip up and tires to

touch down. The runway is the causee which leads to the result that Teabing's Hawker taxied calmly into the private hangar, as shown in the following way:

> **Stimulator (*the pilot*) → Causer[1] (*the Hawker's nose*), Causer[2] (*the tires*) → caused (*tipped up and touched down*) → causee (*the runway*) → result (*Teabing's Hawker taxied calmly into the private hangar*)**

The two actions, tipped up and touched down are categorized as uniplex, bounded and continuous verbs. This is because they are punctual, momentary and indivisible.

MIS[3]-iii: *The jet coasted calmly past the access lane and continued on toward Teabing's hangar in the distance.*

The two actions used in this MIS are related to each other in the sense that the verb 'coast' is complemented by the verb 'continue on'. The mover of both actions is the jet that is stirred from the access lane, as the source of motion, toward Teabing's hangar which represents its destination. The action is PROPEL because the pilot of the jet forced it to coast in the hangar. Accordingly, this physical transfer leads to the action of PTRANS. This geometrical structure can be formulated as follows:

> **Mover *{the jet}* PROPEL => PTRANS from P[1] *{the access lane}* to P[2] *{Teabing's hangar}***

Two forms of movement in this MIS take place. First, the downward vertical trajectory is the form of coasting movement of the jet toward the access lane, then moves directly forward toward Teabing's hangar, as shown in Figure 41.

coasted calmly

continued on

The access lane

Teabing's hangar
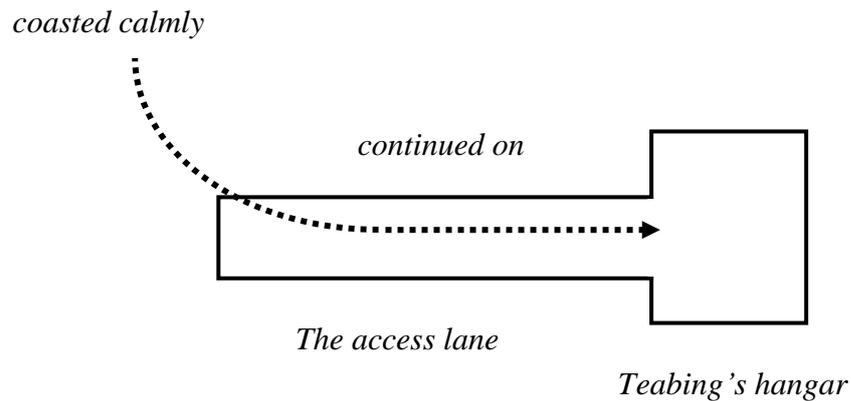
Figure 41: The jet form of movement

In respect of containment, three schemas can be applied: linearity, out-in, and contained-container schemas. First, the jet passing through the lane is on a straight linear. Second, since the jet moves from P^1 (Out) to P^2 (In) inside the hangar, the jet is the TR and the LM is represented by the hangar. The third containment schema used in this MIS is contained-container relation in which the jet is described as the contained entity and the hangar as the container.

Regarding the causative construction, the stimulator is still the pilot. The causer is the jet that does the action of 'coasted', and the lane and Teabing's hangar undergo that action. The result is that Teabing's Hawker taxied calmly into the private hangar, as structured in the following process:

➢ **Stimulator (*the pilot*) → Causer (*the jet*) → caused (*coasted, continued on*) → causee[1] (*the access lane*) → causee[2] (*Teabing's hangar*) → result (*Teabing's Hawker taxied calmly into the private hangar*)**

207

The verb 'coasted' is uniplex and bounded, but with the effect of the second verb 'continued on' it becomes multiplex and unbounded. This is because the action contextually indicates progression and continuous. That is, it denotes a period of time. However, this verb is continuous because there is no internal interruption. In the domain of space, the entities 'jet', 'lane' and 'hangar' are uniplex, bounded and discrete due to their singularity, countability and compositionality.

MIS³-iv: *When the cars finally arrived and skidded to a stop outside the gaping hangar door, the police poured out, guns drawn.*

The dynamic actions involved here are three: arrived, poured out and draw. The type of these actions is PROPEL in which the cares and guns are forced by the police to move. Since the entities are physically moved from P¹ to P², the actions become PTRANS. The three actions also share the same schematic component of motion, that is, the type of motion is factive.

In the first action, the mover is the police's cars. They arrived at the hangar coming from the terminal, as shown in the previous MISs, toward the hangar. The movement of the verb 'arrive' is horizontally in the form of directional, arrival movement. The geometrical motion is described as follows:

➢ **Mover** *{the cars}* **PROPEL => PTRANS from P¹** *{the terminal}* **to P²** *{outside the hangar door}*

The police are the stimulator who motivate and causes the action of 'arriving the cars'. The entity that undergoes this action is the hangar door. The result is that they poured out the cars. The following formula clarifies this causative relation:

➢ **Stimulator/causer (*the police*) → caused (*arrived*) → causee (*the cars*) → result (*the police poured out the cars*)**

On the other hand, the police are conceptualized as the movers in the action of 'poured out'. The source of motion from which the police poured out is the cars, heading towards the hangar door. The verb 'poured out' is conceptualized as having two movements: forward direction and spreading. It has the movement of spreading because the police extend over a wider scope. The path of motion can be illustrated by the following structure:

➢ **Mover *{the police}* PROPEL => PTRANS from P^1 *{the cars}* to P^2 *{the hangar door}***

In this action, the police are also considered as the stimulator and the causer. The cars are the causee that carries the action of 'poured out'. The result is that they draw their guns, as explicated:

➢ **Stimulator/caused (*the police*) → caused (*poured out*) → causee (*the car*) → result (*guns drawn*)**

Police pouring from cars to their outside can be explained in terms of In-out schema. In other words, the police are the TR who move from the LM indicated by the cars.

The final action is described more logically. The mover is represented by the police's guns. The motion starts from the police, particularly from their belts, toward the jet. The movement of drawing is horizontal that has two forms: backward and forward. That is, the guns pulled back and then pointed forward toward the jet. The geometrical transition of this action is introduced as follows:

➢ **Mover** *{the guns}* **PROPEL => PTRANS from P^1** *{the police's belts}* **to P^2** *{the jet}*

The In-out schema can also be used to schematize this motion. This means that the TRs (i.e., the guns) move from inside the LMs (i.e., the belts) to outside.

The police are the stimulators who trigger the action of 'drawing'. The motivated entities are the guns that are forced to draw. The causee is Teabing who is in the jet. The result is realized in the following MIS, that is, the police streamed in, taking up positions around the jet.

➢ **Stimulator** (*the police*) → **Causer** (*the guns*) → **caused** (*drawn*) → **causee** (*Teabing*) → **result** (*The police streamed in, taking up positions around the jet*)

Concerning schematic individuation of this MIS, cars, guns and police are described as multiplex, whilst hangar and door are uniplex entities. All the mentioned entities, except police, have bounded structures since their edges are recognized, whereas the entity 'the police' is unbounded because it is uncountable. Since the entities used in this MIS can be profiled and divided into smaller entities, they are considered discrete.

Regarding the domain of time, the motion verbs arrived, poured, and drawn have uniplex, bounded and continuous structures. This is because they are semelfactive, completed and have not internal interruptions.

MIS^3-v: *The police streamed in, taking up positions around the jet.*

The motion verb 'stream' is classified as PTRANS, due to the presence of physical motion. The movers are the police who move from outside the hangar door to spread around the jet. Accordingly, the hangar door is the source of motion and the jet its goal. The movement is deemed as non-

directional in the form of spreading. The schematic motion of this MIS is illustrated as follows:

> **Mover** *{the police}* => **PTRANS from P[1]** *{outside the hangar door}* **to P[2]** *{the jet}*

The police motivate and cause the action of 'streaming'. Therefore, they are described as the stimulator and causer of that action. The entity on which the action occurs is the jet. The result is that the fuselage door popped open, as clarified in the following structure:

> **Stimulator/Causer** (*the police*) → **caused** (*streamed in*) → **causee** (*the jet*) → **result** (*the fuselage door popped open*)

Finally, the verb 'streamed' has the structures of multiplexity, unboundedness, and continuous. It is multiplex because the process of streaming intrinsically requires a period of time, indicates repetition (as the movers spread to different places), and has no interruptions.

MIS[3]-vi: *Leigh Teabing appeared in the doorway as the plane's electronic stairs smoothly dropped down.*

The motion verb used in this MIS is 'dropped down'. The mover of this motion is represented by the electronic stairs. The motion is seen to be PROPEL, because the electronic stairs is forced to drop by the pilot. This action gives rise to PTRANS which concerns with the physical transition of the object. In terms of geometrical structure, the drop motion starts descending from the door opening towards the bottom at the floor. This transition is structured by the next way:

> **Mover** *{the electronic stairs}* **PROPEL** => **PTRANS from P[1]** *{the door opening}* **to P[2]** *{the bottom at the floor}*

Because there is a direct contact between the stairs and the floor, the surface containment schema is used to describe this MIS. Furthermore, the floor is conceptualized as the container and the stairs as the contained entity. The drop motion takes the form of vertical movement from top to bottom, viz., up-down movement. This can be reflected linguistically by using the adverb 'down'. This motion of the electronic stairs is schematically diagrammed as follows:

The fuselage door

The electronic stairs dropping motion

The floor
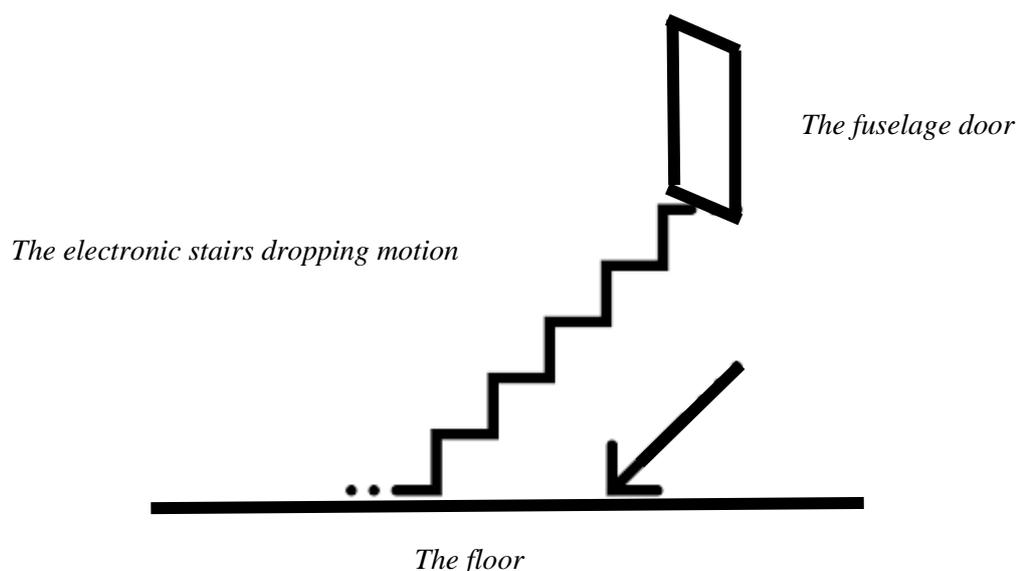
Figure 42: The dropping motion of the electronic stairs

The pilot is the stimulator and the causer who makes the stairs drop down. Thus, the causee is the stairs, and the result is that Teabing appeared in the doorway and hobbled down the stairs. The causative relation of this dynamic motion is configured as follows:

> **Stimulator/Causer (*the pilot*) → caused (*dropped down*) → causee (*the stairs*) → result (*Teabing appeared in the doorway and hobbled down the stairs*)**

Regarding the schematic individuation, the entity 'stairs' is realized as multiplex, as it consists of a group of units. It is also conceptualized as

bounded and discrete because its boundary is recognized and it composes a set of related units. The verb 'drop' is considered as uniplex, bounded and continuous, due to the fact that it does not denote repetition, progression, iteration.

MIS³-vii: *Teabing looked unamused as he hobbled down the stairs.*

Because the study focuses on the dynamic scenes, the action of 'hobbled' will only be analyzed. The mover is Teabing who descended the top of the stairs to bottom in a hobbled way. The schematic transition is PTRANS, without being any external force compelling him to hobble and descend. The form of movement is up-down because there is a vertical movement represented linguistically in the use of the word 'down'. This transfer is clarified in the following way:

➢ **Mover** *{Teabing}* **=> PTRANS from P¹** *{top the stairs at the door opening}* **to P²** *{down the stairs at the floor}*

Teabing is responsible of the hobble and descend actions, that is, he is the stimulator and causer. The causee is represented by the stairs that undergoes the action. The result is that he is on the floor and headed across the hangar toward the parked limousine. This causality is highlighted in the following structure:

➢ **Stimulator/Causer** (*Teabing*) → **caused** (*hobbled down*) → **causee** (*the stairs*) → **result** (*Teabing is on the floor and headed across the hangar toward the parked limousine*)

In terms of containment, the mover is on a straight line from the top to down, that is, the schema of linearity is applied to this MIS.

MIS³-viii: *"Sir," the Kent chief inspector said, stepping forward. The chief inspector repositioned himself to block Teabing's progress away from the plane.*

Two scenes will be analyzed here simultaneously because they are related to each other and also have the same schematic components. The mover is the chief inspector who is responsible for executing the motion. The starting point of the motion is the position he was standing outside the hangar, and the destination where he reaches is in front of Teabing to block his progress. Because the mover is forced to change his position to block Teabing's progress, the actions used in these MISs (i.e., stepping and repositioned) are categorized as PROPEL which gives rise to PTRANS. This schematic motion is shown as follows:

> **Mover *{the chief inspector}* PROPEL => PTRANS from P^1 *{the inspector's position outside the hangar}* to P^2 *{Teabing}***

The containment of this motion can be described in terms of linearity, as there is a straight line between the inspector and Teabing. Moreover, the movement is conceptualized as directional which takes the forward form, and this is explicitly epitomize through the use of the word 'forward'. The mover's horizontal movement can be depicted in Figure 43. The obstructive movement can also be used to describe the action of 'to block'.
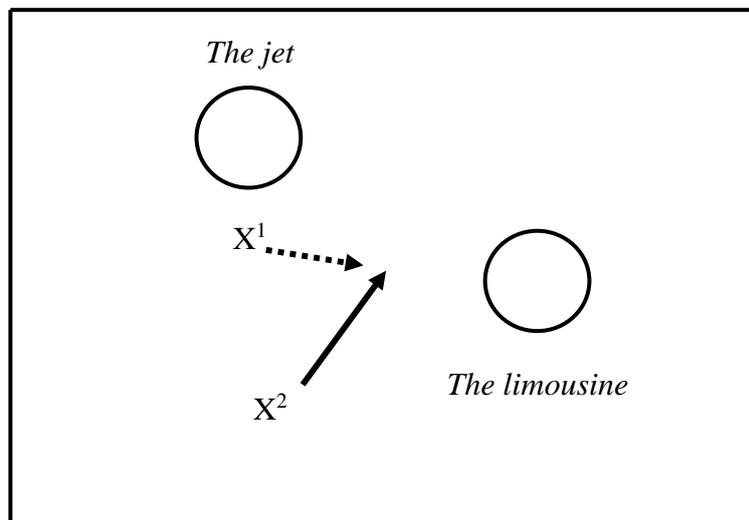
Figure 43: The stepping forward movement

In this figure, X^1 stands for Teabing, and X^2 for the chief inspector. The dashed arrow indicates that X^1 intends to move towards the limousine, but X^2 steps forward, as indicated by hard arrow, to block Teabing's progress.

The chief inspector is deemed as the stimulator and causer that induces the actions of 'stepping forward' and 'repositioned'. Teabing is the entity who undergoes these actions. The result is that the mover blocked Teabing's progress. The four causative components are represented as follows:

> **Stimulator/Causer (*the chief inspector*) → caused (*stepping, repositioned*) → causee (*Teabing*) → result (*the chief inspector blocked Teabing's progress*)**

The verbs 'stepping', 'repositioned' and 'block' are all classified as uniplex, bounded and continuous. This is because they do not have the features of repetition, progression, and internal interruptions.

MIS³-ix: *Teabing and Rémy walked around the chief inspector and headed across the hangar toward the parked limousine.*

This MIS consists of two actions: 'walked' and 'headed'. Teabing and Rémy are the movers who walked around the chief inspector toward the parked limousine. Accordingly, the source of motion is the chief inspector, and the goal is the parked limousine. The schematic transition of PROPEL is used to describe the actions of this MIS, as described in the following formula:

> ➢ **Mover** *{Teabing and Rémy}* **=> PTRANS from P[1]** *{around the chief inspector}* **to P[2]** *{the parked limousine}*

Two forms of movement involved in this MIS. The first is that the movers walk around the chief inspector. This movement is classified as directional, which means that Teabing and Rémy moved in one direction to turn around the chief inspector. The second movement is that they headed directly towards the limousine in the form of forward. This can be reflected linguistically through the use of the preposition 'across'. The motion can be diagramed in Figure 44, where X^1 and X^2 refer to Teabing and Rémy, whereas X^2 to the chief inspector:
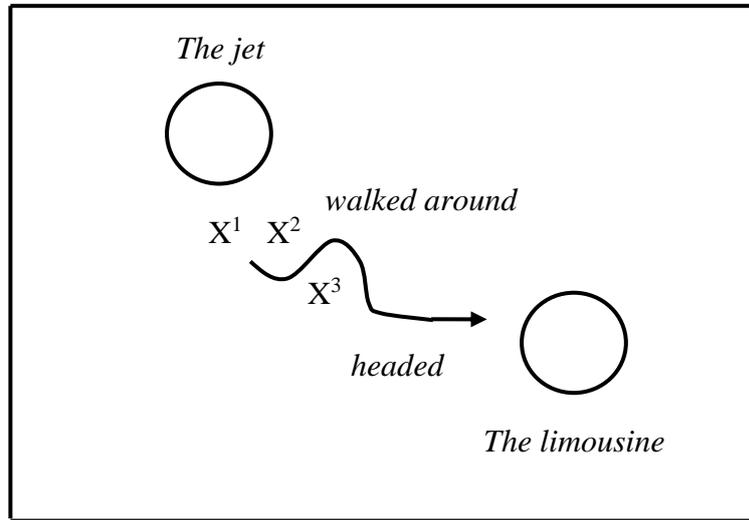
Figure 44: The *walk* around and *head* movements

The two movers are structured as the stimulators and causers, while the chief inspector as the causee who undergoes the action. The result is that the chief inspector turned and aimed at Teabing's back. The causative relation of this MIS is clarified as follows:

> **Stimulator/Causer (*Teabing and Rémy*) → caused (*walked, headed*) → causee (*the chief inspector*) → result (*the chief inspector turned and aimed at Teabing's back*)**

With regard to individuation, the verbs 'walked' and 'headed' are considered as uniplex, bounded and continuous, due to their punctual, completed and durative nature.

MIS^3-x: *The chief inspector turned and aimed at Teabing's back.*

Reacting to Teabing's action, who circled around the chief inspector and headed toward the limousine, the chief inspector turned and pointed his gun at Teabing's back. The two actions used in this MIS are 'turned' and 'aimed'. Both are classified as PROPEL in the scene that the chief inspector is forced to turn and aim his gun at Teabing. This physical movement leads to the action of PTRANS. The mover of the action 'turned' is the chief inspector's body as a whole, rotating 180 degrees

from front to back in the direction of Teabing. The form of movement is classified as directional, as the moving entity is moving in a particular direction. The motion can be illustrated as follows:

> **Mover** *{the chief inspector's body}* **PROPEL => PTRANS from P^1** *{the front}* **to P^2** *{the back}*

In this MIS, there is a causative change in the stimulation from Teabing to the chief inspector who is conceived as the stimulator that motivates and causes the action of 'turning'. His body is considered as the causee, as it underwent the action. The result is that he aims his gun at Teabing's back, as shown in the following structure:

> **Stimulator/Causer** (*the chief inspector*) → **caused (turned)** → **causee** (*his body*) → **result** (*he aimed his gun at Teabing's back*)

In the action of 'aimed', the mover is the chief inspector's gun which can also be assorted as PROPEL that gives rise to PTRANS. The gun moves from the chief inspector, directing toward Teabing. The movement is horizontal in the form of forward direction. This geometrical transfer of the mover is translated into the following pattern:

> **Mover** *{the gun}* **PROPEL => PTRANS from P^1** *{the chief inspector}* **to P^2** *{Teabing's back}*

In relation to containment schema, the gun is the container that carried by the chief inspector (i.e., its container). Furthermore, the chief inspector and Teabing are on a straight line, and thus, the schema of linearity is applicable.

Concerning the causative relationship, the chief inspector is the stimulator and causer. The entity that is under the caused action of aiming is the gun

which causes the result that Teabing is at gunpoint. These five causative elements are presented as follows:

> **Stimulator/Causer** (*the chief inspector*) → **caused** (*aimed*) → **causee** (*the gun*) → **result** (*Teabing is at gunpoint*)

The verbs 'turned' and 'aimed' are both treated as uniplex, bounded and continuous. They are uniplex because they do not indicate repetition, and bounded because they are completed actions, and continuous due to their inseparability into discrete actions.

MIS³-xi: *His men raced over, guns leveled, and physically blocked Teabing and his servant from reaching the limousine.*

This MIS also has a causative change of the mover from the chief inspector to his men (i.e., the police). They carry out three actions: raced over, leveled and blocked. As a reaction to the chief inspector's order, the police perform these actions. Accordingly, the three actions are categorized as PROPEL, and because of the movers' physical motion, the action of PTRANS takes place.

In relation to actions of 'raced over' and 'blocked', the police are the movers. Although the police and Teabing and his servant are all conceptualized as animate movers, the ones that carry out the processes of racing over and obstruction are the police. The source of motion is the police's position where they stand, all the way to the front of Teabing and his servant which represents its goal. This transfer is schematically structured as follows:

> **Mover** *{the police}* **PROPEL => PTRANS from P¹** *{their position where they stand}* **to P²** *{in front of Teabing and his servant}*

The movement of 'raced over' is classified as directional in the sense that the police rush forward toward the destination, while 'blocked' movement is non-directional in the form of obstructive movement, as Teabing and his servant are impeded to progress.

As concern to causality, the police are conceptualized as having the two causative elements of causer and causee. However, they are motivated to move by the chief inspector. That is, the chief inspector orders them to race over and block the Teabing and his servant's progression, then they execute the motion and submit to it at the same time. The result is that the gun leveled at Teabing and his servant. The causative transition of the actions 'raced over' and 'blocked' can be shown in this structure:

> **Stimulator (*the chief inspector*) → Causer/ causee (*the police*) → caused (*raced over, blocked*) → result (*the gun leveled at Teabing and his servant*)**

According to the action of 'leveled', the guns are the movers in which the motion starts from the police toward Teabing and his servant. This motion is directional in form of forward movement toward the destination. This change in movement is schematically structured as follows:

> **Mover *{the guns}* PROPEL => PTRANS from P^1 *{the police}* to P^2 *{Teabing and his servant}***

The guns are stimulated and caused to move by the police. Thus, the guns are the entities that undergo the caused verb of 'leveled'. The result is that the police blocked Teabing and his servant from reaching the limousine.

- ➢ **Stimulator/Causer** (*the police*) → **causee** (*the guns*) → **caused** (*leveled*) → **result** (*the police blocked Teabing and his servant from reaching the limousine*)

With respect to individuation, the actions 'raced over', 'leveled', and 'blocked' have uniplex, bounded and continuous construction, as they non-repeated, completed, and uninterrupted verbs.

4.5.1.3. Nano Scenes

NAS level of analysis relates to divide a MIS into tiny conceptual scenes, stimulating each motion in that scene. three MISs are chosen to be analyzed in terms of NAS. They are:

NAS³-i: *The jet coasted calmly past the access lane and continued on toward Teabing's hangar in the distance.*

Seven NASs are arranged sequentially to form this scene. In other words, the VA of these NASs is sequential and can logically be determined:

- a. *The jet flies in the sky.*
- b. *It slowly began to descend.*
- c. *It landed on the runway.*
- d. *It touched the runway.*
- e. *The jet overstepped the access lane.*
- f. *It continued to move on the runway.*
- g. *Finally, it entered Teabing's hangar.*

The combination of these seven motions will construct NAS³-i. A change in their order means a change in our VA of the scene. Since the jet is mover of NAS³-i, it is also the mover of all NASs that embodied within that scene.

NAS³-ii: *When the cars finally arrived and skidded to a stop outside the gaping hangar door, the police poured out, guns drawn.*

The scene has five sequential embedded NASs. Because the mover is the cars, all implicit actions have the same mover. NASs of NAS³-ii can be shown as follows:

a. *The cars stood somewhere.*

b. *They began moving toward hangar.*

c. *They continued moving.*

d. *They arrived.*

e. *They stopped outside the hangar door.*

As a result, the police poured out and this action is broken down into three hidden concepts:

a. *The police got out of the cars.*

b. *They poured out.*

c. *They stood somewhere.*

In the final action (i.e., *guns drawn*), the movers are the guns that are motivated by the police to move. This action is divided into four implicit NASs, as shown:

a. *The police move their hands.*

b. *They caught the guns.*

c. *They pulled out the guns.*

d. *The police pointed the guns forward.*

The integration of these three actions and several embedded NASs helps conceptualizing sequentially the higher level of NAS³-ii.

NAS³-iii: *The police streamed in, taking up positions around the jet.*

The protagonist of this scene is also the police who execute four hidden actions, as shown in the following NASs:

a. *The police stood somewhere.*

b. *They deployed to the hangar.*

c. *They continued deploying.*

d. *They took up positions around the jet.*

These four NASs are viewed sequentially, forming the whole scene. That is, their VA cannot be manipulated. The scene starts with static scene when the police stood somewhere (a). Then, they deployed to the hangar (b); and continuing moving (c); until they took up positions around the jet (d).

4.5.2. Construalization of Scene Three

4.5.2.1. Saliency

In Scene Three, several entities and actions are highlighted over others. This is due to the fact that such parts of the scene play a vital role in the VA of the scene as a whole. Although passengers in the airport, planes, waiting room, control towers and other places and items are parts of the scene, these entities are outside the scenes (i.e., offstage). In other words, all our attention is directed to what is on the stage, and is focused more specifically on the characters (Edwards, Teabing, Rémy, the police, and the chief inspector) who speak and take actions, and entities (the jet and its parts, the runway, the hangar, the cars and etc.) that influence the motions in the scene. Being totally absorbed in the scene, we have hardly any awareness of other irrelevant entities and places.

Figure-ground alignment is also commonly used in the scene to protrude some entities over others. The foregrounded and backgrounded entities can be shown in the following scenes:

1. *The Hawker was low in the sky now, skimming the treetops to their right.*
2. *Out on the runway, the Hawker's nose tipped up, and the tires touched down in a puff of smoke.*
3. *As the plane completed its 180-degree turn and rolled toward the front of the hangar, ...*
4. *The plane settled in for deceleration, streaking from right to left in front of the terminal, ...*
5. *The jet coasted calmly past the access lane and continued on toward Teabing's hangar in the distance.*
6. *Teabing's Hawker taxied calmly into the private hangar and disappeared.*

In the first part of Scene Three, the writer sheds light on the motions of the plane. As it represents the doer in these six scenes, the writer conceptualizes the plane as the figure. This is because it has the feature of movability, unlike the ground (such as the sky, the runway, the terminal, the access lane and Teabing's hangar) which is more stationary. Thus, the plane in these four scenes is more prominent than other entities.

However, the writer has shafted the attention when the police and the Kent chief inspector take their turns. This can be illustrated in the following dynamic scenes:

6. *When the cars finally arrived and skidded to a stop outside the gaping hangar door, the police poured out...*
7. *The police streamed in, taking up positions around the jet.*
8. *"Sir," the Kent chief inspector said, stepping forward.*
9. *The chief inspector repositioned himself to block Teabing's progress away from the plane.*

10. *The chief inspector turned and aimed at Teabing's back.*

11. *His men raced over, guns leveled, and physically blocked Teabing and his servant from reaching the limousine.*

12. *The chief inspector gripped his sidearm and marched up the plane's gangway.*

13. *Arriving at the hatch, he peered inside. After a moment, he stepped into the cabin.*

In these scenes, the entities that have the feature of saliency are the police and the chief inspector because they are described as the figure. Since the police are more movable, the entities of the jet, Teabing and his servant, the plane's gangway, etc. are conceptualized as the grounds which have somewhat a stationary location. accordingly, they have less attention than the police.

Another process of saliency is zooming in which there is transfer from the outer periphery to the point of focus. This can be seen in scenes (12) and (13), as the scope is narrowed from the plane's gangway and then the hatch into the cabin. This locative transfer can be expressed by the prepositions *'up', 'at',* and *'into'*. Each locative expression profiles an object in the scope specified by the preceding locative expression. The most distant scope of attention is the plane, zooming it successively in the way that the profiled object (i.e., the cabin) carries the most scope of attention.

As concern to the aspect of grammatical saliency, scenes (3) and (12) are instances of the grammatical positioning. The arrangement of these two scenes influences the way they are viewed. The actions of 'arriving' and completing are preposed and thus, take high prominence. This depends on which action happens before or after. That is, the completion of plane its

180-degree turn in (3) occurred before it rolls toward the front of the hangar, and the chief inspector's arrival at the hatch in (12) is happened before he steps into the cabin.

4.5.2.2. Perspective

The motion perspective of this scene can be reflected in the spatial setting. For instance, the spatial expression 'front of' in scenes (3) and (4) indicates that the observer (e.g., the police) actually looks at the plane that locates between them and the hangar in (3), and the terminal in (4). This means that the viewpoint is directed forward.

However, the use of the expression 'back' in (14) means that the vantage point is backward:

14. The chief inspector turned and aimed at Teabing's back.

This means that the gun is mediated between the chief inspector and Teabing's back, and this depends on the observer's location.

The adverb 'outside' can also be used to construe the locational perspective in scene (6). The use of such spatial deictic expression indicates that the writer depicts the scene from inside the hangar. That is, the viewing angle is inside the hangar, where the plane is situated and the cars and the police are outside.

4.5.2.3. Judgement and Comparison

One of the construal operations used in this scene is comparison, where the writer uses framing process to represent the entities and action of the scene. Framing relates to the characterization of scene components that are grouped within the same domain. The entities 'Hawker' in (1), 'plane' in (3) and (4), 'jet' in (5) and 'fuselage' in (15) are used in different scenes to refer to the same object. In addition, the entities 'Hawker's nose

and tires' in (2), 'the fuselage door' in (15), 'the doorway' and 'electronic stairs' in (16), 'the hatch' and 'the cabin' in (13), and 'plane's gangway' (12), are framed within the domain of 'plane'.

14. *After several seconds, the fuselage door popped open.*
15. *Leigh Teabing appeared in the doorway as the plane's electronic stairs smoothly dropped down.*

The writer uses the dynamic metaphor of 'stream in' in (7) to describe the spread of the police in the hangar. In other words, the writer likens this diffusion to the flow of water. The use of such construal operation affects our view of the scene.

4.6. Hypotheses Verification

1. The hypothesis, which reads as follows "A scene is classified into two hierarchical levels, called macro and micro scenes" is partially verified. A scene can be analyzed in terms of three levels: called macro, micro and nano. The assumes that scenes are grouped together into cluster of explicit and implicit actions used to configure the whole scene.

2. The second hypothesis, namely "The boundaries of a scene are identified according to time and place", is also partially verified. Although the boundaries of a scene can be determined by the time and place in which that scene takes place, the theme and the participants also play a role in drawing the boundaries of the overall scene.

3. The hypothesis, which states as follows "A dynamic scene contains the sequential and stationary schematic processes and components that are considered as primitive", is fully verified. The study states

that a dynamic scene cannot be constructed without series of sequential and stationary schematic processes and components.

4. The mover cannot move without a given spatiotemporal situation. This supports the hypothesis, which says: "the sequential and stationary schematic processes and components of dynamic scenes work together and cannot be separated, configrating the picture of a dynamic scene.

5. The study has also found that the scenes are arranged sequentially, meaning that the scene is executed through the effect of the scene that precedes or follows it. This confirms the fifth hypothesis which states: "micro scenes are sequentially combined through the process of causative transitionality to form the macro scene".

6. The hypothesis, which reads as follows "the entities and actions of a scene are divided in terms of their quantity", is verified. This is because the study has found that the quantity of entities affects the way we view the scene.

7. The hypothesis, which reads "focus of attention is one of the construal operations that play a vital role in the viewing arrangement of the entities of a scene", is partially verified. The study has found out that the construal operations of perspective and comparison, along with saliency, can also take a leading role in the VA of a scene.

8. The hypothesis, namely "Because a scene has the same schematic processes and components, its entities are construalized in a similar way", is rejected. Although the dynamic scene is schematically structured in the similar way, the scene entities are construalized differently depending on their arrangement and position in the scene.

CHAPTER FIVE

Conclusions, Recommendations and Suggestions for Further Studies

5.1. Conclusions

Some conclusions can be drawn in relation to the proposed objectives of the current study. These conclusions are based on the findings arrived at in Chapter Four. After investigating the VA in Dan Brown's *The Da Vinci Code*, the study has come up with the following conclusions:

1. Each scene is divided into three levels of analysis: macro, micro, and nano scenes. Macro and micro scenes are explicitly stated, while nano scenes are implicit. MAS is defined as a unified agglomeration of a scene consisting of a set of sequentially organized actions, known as micro scenes. It carries the general idea of a scene. MISs are individual fragments consisting of a group of subscenes that are arranged in the way that the first cannot be preceded by the second. If their arrangement changes, our conceptualization will also change. NASs are indivisible, primitive implied scenes that are not linguistically, but logically, represented in a scene. They refer to the simulations of every motion in a MIS, and their combination configurates this larger scene.

2. According to the model developed, a scene is seen as a perceptual unit that involves a series of actions happening in a single place without a break in time. In addition to time and place, a scene is configured and bounded within the same main participant(s) and theme. Any penetration or change in these four characteristics

means the transition to another scene and thus the formation of a new event.

3. The study proposes a set of schematic primitive components with which human can build any sequential scene. These components concern with the analysis of the basic scene-structure. They are grouped within two types of schematic structures: sequential and stationary. The first group is generally understood as a change of location of an object from one place to another. This change involves a series of sequential schematic components, they are mover (animate, self-animate and inanimate), motion (including two types: fictive and factive, and three forms verticality, horizontality and trajectory), schematic transitions (include PROPEL and PTRANS), and causality (including five elements stimulator, causer, causee, caused verb, and result). Stationary schematic structures, on the other hand, concern with the static physical structures of entities, such as geometrical structures (source-path-goal), containment, and physical characteristics of an object. These sequential components of a dynamic scene work together and in a successive way.

4. The schematic components of the dynamic scenes play a role in drawing the readers' mental image. Under analysis, each dynamic scene analyzed consists of a group of schematic elements. This means that a scene is not considered as dynamic without the presence of mover, motion, causative relation and other components. The schematic components of a particular scene are linked with the elements of the other scenes that precede and follow them to form a coherent series of actions and motions.

Therefore, the position of the dynamic scene entities in a scene plays a role in the VA of that scene, i.e., conceptualizing a holistic picture of the scene.

5. MISs are sequentially combined through the application of causative transitionality process which takes place when the occurrence of the second scene (the result scene) is wholly dependent on the occurrence of the first scene (the caused scene). These causal relations continue between the scenes (micro and nano scenes) in succession until causal chain is completed to form the macro scene. Thus, causality is considered as a motivation in the sense that a scene motivates another scene to do something.

6. The entities and actions of a scene are internally divided based on the cognitive process of individuation. The number of entities and the tense/aspect of action affects the phenomenon of VA through three aspects: plexity, boundedness and dividedness. A difference in the tense/aspect of a scene (completion, progression, repetition), or in the number of movers (countable, uncountable, or discrete) mean a difference in the way we view a scene.

7. Beside the schematic structuring components, construalization takes a leading role in the conceptualization of the sequential VA of a scene. Each scene has three construal operations through which a scene is viewed: saliency, perspective and comparison. Saliency occurs when certain parts of a scene are highlighted over others. Saliency can be reflected linguistically through four aspects: onstage vs. offstage, figure-ground alignment, zooming and grammatical saliency. The second operation is perspective which concerns with the spatial and temporal imagery from which

a situation is conceptualized. It is realized through three aspects viewpoint, deixis, and subjectivity/objectivity. The final operation is comparison which relates to how we construe a scene in relation to another compared one. It can be reflected through framing, metaphor, and, figure–ground relationships.

8. Construalization plays a role in the VA of dynamic scenes. The writer of a scene selects certain entities that affect the VA of that scene and places them in the center of attention. That is, he highlights the elements that play a major role in arranging the scene and influencing its actions. The writer used different linguistic ways to make some onstage elements prominent. For instance, he ignores the entities that are irrelevant by making them offstage, and narrows the scope of others by starting successively from the most general scope to a specific one. He also introduces one entity or action to another. This is because it relates to the sequential relationship of actions that are happened later in time; or those that are occurred at an earlier time. The writer also adopts a specific vantage point from which a scene is conceptualized depending on particular spatial or temporal position. This vantage point changes whenever the mover moves.

5.2. Recommendations

Following are some recommendations that are considered worthy, especially for the writers who conceptualize reality by using words. The recommendations set forth in the current chapter provide some useful ideas for further study.

1. Writers should avoid describing things that are not related to the scene so that the picture will be clear to the readers. They should show the most important entities and actions of the scene in such a way that they are visible to the readers. Writers should also arrange scenes and its entities and actions in a sequential manner.

2. Foreign language teachers should devote some lessons during the learning process to point out the way of structuring and construing scenes in the target language. They should develop the students' ability to focus on one aspect of a scene rather than another. Teachers can thus help students construct and understand the text easily.

3. Since the human mind works with the same mechanism, this helps to create similar images in two different languages. As a result, translators should find shared schematic processes and components in order to create an accurate and similar scene in both languages.

5.3. Suggestions for Further Studies

Following both the theoretical and practical findings, the following suggestions are seen worthy for further research:

1. A similar study can be carried out on a group of blind people to investigate how they conceptualize and arrange a dynamic scene.

2. The analysis of viewing arrangement in the summary scene can also be conducted.

3. SSVA model can be developed by suggesting other schematic components that are related to the dynamic scenes.

4. Several new construal operations can be proposed to examine the arrangement of dynamic scenes.

5. A similar study could be applied at a higher level of scene, such as an event, to see how a set of dynamic scenes and events relate together in a sequence.

6. A further study can focus on how learners conceptualize scenes in a target language.

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List of Tables

List of Figures

List of Abbreviations

CBT	Conceptual Blending Theory
CL	Cognitive Linguistics
CR	Cognitive Representation
CMT	Conceptual Metaphor Theory
FS	Formal Semantics
GG	Generative Grammar
LCCM	Lexical Concepts and Cognitive Models
LM	Landmark
MAS	Macro scene
MIS	Micro scene
MST	Mental Space Theory
NAS	Nano scene
P^1	First position
P^2	Second position
SSVA	Sequential Scanning of Viewing Arrangement
TR	Trajector
UG	Universal Grammar
VA	Viewing Arrangement

List of Contents

Subject	Page

CHAPTER ONE
Introduction

CHAPTER TWO
Cognitive Linguistics: Theoretical Background

CHAPTER THREE

Scene and Sequential Scanning of Viewing Arrangement Model

CHAPTER FOUR

Data Selection, Description and Analysis

CHAPTER FIVE

Conclusions, Recommendations and Suggestions for Further Studies

Appendix (1)

Dynamic Micro Scenes of Macro Scene One

Prologue

Paris, Louvre Museum, 10:46 P.M.

1. Renowned curator Jacques Saunière staggered through the vaulted archway of the museum's Grand Gallery.
2. He lunged for the nearest painting he could see, a Caravaggio.
3. Grabbing the gilded frame, the seventy-six-year-old man heaved the masterpiece toward himself until it tore from the wall and Saunière collapsed backward in a heap beneath the canvas.
4. As he had anticipated, a thundering iron gate fell nearby, barricading the entrance to the suite.
5. The parquet floor shook. Far off, an alarm began to ring.
6. The curator lay a moment, gasping for breath, taking stock.
7. He crawled out from under the canvas and scanned the cavernous space for someplace to hide.
8. On his hands and knees, the curator froze, turning his head slowly.
9. Only fifteen feet away, outside the sealed gate, the mountainous silhouette of his attacker stared through the iron bars.
10. The albino drew a pistol from his coat and aimed the barrel through the bars, directly at the curator.
11. "I told you already," the curator stammered, kneeling defenseless on the floor of the gallery.
12. "You are lying." The man stared at him, perfectly immobile except for the glint in his ghostly eyes.
13. The curator felt a surge of adrenaline.
14. The man leveled his gun at the curator's head. "Is it a secret you will die for?"
15. The man tilted his head, peering down the barrel of his gun.
16. The attacker aimed his gun again.
17. The gun roared, and the curator felt a searing heat as the bullet lodged in his stomach.
18. He fell forward... struggling against the pain.
19. Slowly, Saunière rolled over and stared back through the bars at his attacker.
20. The man was now taking dead aim at Saunière's head.

21. Saunière closed his eyes, his thoughts a swirling tempest of fear and regret.
22. The click of an empty chamber echoed through the corridor.
23. The curator's eyes flew open.
24. The man glanced down at his weapon, looking almost amused.
25. He reached for a second clip, but then seemed to reconsider, smirking calmly at Saunière's gut.
26. The curator looked down and saw the bullet hole in his white linen shirt.
27. It was framed by a small circle of blood a few inches below his breastbone. My stomach.
28. Almost cruelly, the bullet had missed his heart. As a veteran of la Guerre d'Algérie, the curator had witnessed this horribly drawnout death before.
29. For fifteen minutes, he would survive as his stomach acids seeped into his chest cavity, slowly poisoning him from within.
30. Alone now, Jacques Saunière turned his gaze again to the iron gate.
31. He was trapped, and the doors could not be reopened for at least twenty minutes.
32. By the time anyone got to him, he would be dead. Even so, the fear that now gripped him was a fear far greater than that of his own death.
33. Staggering to his feet, he pictured his three murdered brethren.
34. Shivering, he pulled himself to his feet.
35. He was trapped inside the Grand Gallery, and there existed only one person on earth to whom he could pass the torch.
36. Saunière gazed up at the walls of his opulent prison.

Appendix (2)

Dynamic Micro Scenes of Macro Scene Two

Chapter 65

1. Sophie and Teabing were seated on the divan, arms raised as their attacker had commanded.
2. "My Teacher is very wise," the monk replied, inching closer, the gun shifting between Teabing and Sophie.
3. Teabing slipped his right hand through one of his crutches and grasped the keystone in his left.
4. Lurching to his feet, he stood erect, palming the heavy cylinder in his left hand, and leaning unsteadily on his crutch with his right.
5. The monk closed to within a few feet, keeping the gun aimed directly at Teabing's head.
6. "It's quite heavy," the man on crutches said, his arm wavering now.
7. Silas stepped quickly forward to take the stone, and as he did, the man on crutches lost his balance.
8. The crutch slid out from under him, and he began to topple sideways to his right.
9. No! Silas lunged to save the stone, lowering his weapon in the process.
10. But the keystone was moving away from him now.
11. As the man fell to his right, his left hand swung backward, and the cylinder tumbled from his palm onto the couch.
12. At the same instant, the metal crutch that had been sliding out from under the man seemed to accelerate, cutting a wide arc through the air toward Silas's leg.
13. Splinters of pain tore up Silas's body as the crutch made perfect contact with his cilice, crushing the barbs into his already raw flesh.
14. Buckling, Silas crumpled to his knees, causing the belt to cut deeper still.
15. The pistol discharged with a deafening roar, the bullet burying itself harmlessly in the floorboards as Silas fell.
16. Before he could raise the gun and fire again, the woman's foot caught him square beneath the jaw.

Appendix (3)

Dynamic Micro Scenes of Macro Scene Three

Chapter 81

Britain, early in the morning at Biggin Hill Airport

1. The Hawker was low in the sky now, skimming the treetops to their right.
2. Simon Edwards went downstairs to watch the landing from tarmac level.
3. Out on the runway, the Hawker's nose tipped up, and the tires touched down in a puff of smoke.
4. The plane settled in for deceleration, streaking from right to left in front of the terminal, its white hull glistening in the wet weather.
5. But rather than braking and turning into the terminal, the jet coasted calmly past the access lane and continued on toward Teabing's hangar in the distance.
6. Seconds later, Edwards found himself wedged in a police car racing across the tarmac toward the distant hangar.
7. The convoy of police was still a good five hundred yards away as Teabing's Hawker taxied calmly into the private hangar and disappeared.
8. When the cars finally arrived and skidded to a stop outside the gaping hangar door, the police poured out, guns drawn.
9. Edwards jumped out too.
10. As the plane completed its 180-degree turn and rolled toward the front of the hangar, …
11. The pilot brought the plane to a final stop, and powered down the engines.
12. The police streamed in, taking up positions around the jet.
13. Edwards joined the Kent chief inspector, who moved warily toward the hatch.
14. After several seconds, the fuselage door popped open.
15. Leigh Teabing appeared in the doorway as the plane's electronic stairs smoothly dropped down.
16. As he gazed out at the sea of weapons aimed at him, he propped himself on his crutches and scratched his head.
17. Simon Edwards stepped forward, swallowing the frog in his throat.

18. Teabing looked unamused as he hobbled down the stairs.
19. "Sir," the Kent chief inspector said, stepping forward.
20. The chief inspector repositioned himself to block Teabing's progress away from the plane.
21. Teabing stared at the chief inspector a long moment, and then burst out laughing.
22. Teabing and Rémy walked around the chief inspector and headed across the hangar toward the parked limousine.
23. The chief inspector turned and aimed at Teabing's back.
24. His men raced over, guns leveled, and physically blocked Teabing and his servant from reaching the limousine.
25. the chief inspector gripped his sidearm and marched up the plane's gangway.
26. Arriving at the hatch, he peered inside. After a moment, he stepped into the cabin.
27. With that, Teabing's manservant opened the door at the rear of the stretch limousine and helped his crippled master into the back seat.
28. Then the servant walked the length of the car, climbed in behind the wheel, and gunned the engine.
29. Policemen scattered as the Jaguar peeled out of the hangar.