

EXPLAINING AND UNDERSTANDING **LITERARY FICTION**

A COMPARITIVE STUDY ON SCHEMA THEORY, CONCEPTUAL
BLENDING AND TEXT WORLD THEORY

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Abstract

De stijgende populariteit van cognitieve wetenschappen in de literatuurwetenschap heeft voor een proliferatie van parallelle, cognitieve theorieën en terminologieën gezorgd. Hoewel ze zeer boeiende inzichten bieden, zorgt deze wildgroei voor een theoretische stagnatie van de cognitieve literatuurwetenschap. Deze dissertatie tracht te snoeien in de wildgroei door drie cognitieve modellen van literatuur te onderzoeken en vergelijken: Schema Theory, Text World Theory en Conceptual Blending Theory. Na een introductie en toepassing van de drie theorieën op *A Pursuit Race* van Hemingway, worden hun cognitieve claims, empirische validiteit, doelen en methodes besproken. Er wordt gewezen op zowel de theoretische redundantie van deze theorieën alsook op de feilbare waarde van de cognitieve claims. De theorieën wijken namelijk alle drie stevig af van hun basis in de cognitieve wetenschappen door psychologische concepten te compliceren zonder ze empirisch te testen. Ik concludeer dat elke theorie zijn waarde heeft: Schema Theory verklaart de totstandkoming van verschillende interpretaties, Text World Theory kan de interactie tussen lezer en tekststructuur blootleggen en Conceptual Blending toont hoe literaire interpretatie geconstrueerd wordt. Tenslotte, schuif ik een combinatie van de drie theorieën naar voren die de literatuurwetenschapper toelaat om op een gedetailleerde manier het proces van literaire interpretatie te verklaren.

The increasing popularity of the cognitive turn has led to a proliferation of parallel cognitive theories and terminologies. Although these provided us with valuable insights, this overgrowth has led to the stagnation of the field of cognitive literary studies. This dissertation aims to trim this overgrowth by examining and comparing three cognitive models of literature: Schema Theory, Text World Theory and Conceptual Blending Theory. After the theories are introduced and applied to *A Pursuit Race* of Hemingway, their cognitive claims, empirical grounds, goals and methods are discussed. In doing so, this dissertation pinpoints the redundancy in concepts and the questionable grounds of some of the cognitive claims. Indeed, their complicated models have strayed far from the basic established cognitive concepts on which they were built, without providing empirical evidence. Moreover, I conclude that Schema Theory has the potential to explain different literary interpretations formed by different readers, how Text World Theory can reveal the interaction between text structure and the reader and that Conceptual Blending models the way in which literary interpretation is constructed. Finally, I suggest that a combination of the three theories enables the cognitive literary critic to explain the process of literary interpretation.

1. Introduction

Ernest Hemingway has a lean, pleasing, tough resilience. His language is fibrous and athletic, colloquial and fresh, hard and clean; his very prose seems to have an organic being of its own. Every syllable counts toward a stimulating, entrancing experience of magic. (*New York Times*, 1925, p.8)

Literary fiction is the crown jewel of human culture and great writers are its kings and queens. However, not all writers are granted praise and laurel. Many are forgotten, only few are canonised. Why have precisely these few survived? Literary scholars have tried to find the answers by examining the classics in detail. After their thorough analysis, scholars write reviews and articles such as the review above from the *New York Times*, praising the divine style of past and present authors. In doing so, the dynamic field of literary studies has provided us with interesting and valuable interpretations and analyses of the great novels. With dynamic, I mean that the field of literary studies has experienced its paradigm switches: Russian Formalists have revived linguistic attention, structuralists have constructed structures and deconstructionists have deconstructed them. Nevertheless, it is not until the 1980s that scholars have begun to wonder how we read literature and how it interacts with our human cognition. This new perspective on literature is to be situated within the cognitive turn that sprung from the vast scientific progress in cognitive psychology, after which other disciplines gained cognitive subfields as well. One of the first disciplines to follow was linguistics. Indeed, Lakoff and Johnson's (1980b) *Metaphors We Live by* was the first impulse for a cognitive perspective on the study of language. Immediately after, cognitive linguists started to apply cognitive linguistic theories to objects traditionally belonging to the field of literary studies (Vandaele & Brône, 2009, p.2; see also Van Oort, 2003, p.238), which resulted in a new field called cognitive poetics (see Stockwell, 2002; Gavins & Steen, 2003; Tsur, 1992). Since the late 1980s cognitive perspectives on literature have grown resulting in a vast and interdisciplinary body of theories, models and literary analyses. Each one of them on the search to clarify the relation between literature and cognition.

However, there is a downside to this increasing popularity. Even though almost 40 years of research into literature and cognition have enriched us with valuable insights, there has been a proliferation of similar and overlapping theories, models and terminology: Schema Theory, Text World Theory, Possible-worlds theory, Script Theory, Contextual Frame Theory, Mental Spaces Theory, Conceptual Blending Theory, Story Worlds and so on. It appears that instead of using existing terminology and correcting or nuancing it, literary scholars prefer to conceive a new though similar theory with its own terminology and name. Consequently, parallel cognitive theories have been

mushrooming, which discourages scholars from using existing theories even more and encourages them to invent yet another model of literature and cognition in a never-ending circle.

Furthermore, some scholars have started questioning the value of the cognitive approaches (e.g. Hall, 2003). For instance, according to Jackson (2005, p.528), and Weber (2004, p.518) cognitive approaches to literature too often use complex models and terminology borrowed from cognitive sciences in order to prove something that is painfully obvious. Moreover, both Weber (2004, p.519) and Richardson and Crane (1999, p.123) doubt the cognitive validity of the claims made by these approaches. Consequently, the cognitive validity and the value of these approaches must be addressed in order to establish whether these cognitive approaches are worth the effort.

The present dissertation aims to meet these shortcomings of the field cognitive literary studies by taking the first step in trimming the overgrowth of cognitive models and analysing their value and validity. For this purpose, three cognitive models are compared, namely Schema Theory, Text World Theory and Conceptual Blending. First, Schema Theory was originally a psychological theory of memory and perception (Bartlett, 1932) which has been adopted by literary scholars for the study of literature (e.g. Cook, 1994; Semino, 1997). Secondly, Text World Theory is a cognitive linguistic theory of discourse processing (see Werth, 1999) that has gained popularity in the fields of literary studies and stylistics over the past decade (e.g. Gavins, 2001). Finally, Conceptual Blending Theory (Fauconnier & Turner, 2002) was conceived as a theory of metaphor processing, but has been extended to almost all processes of human thought and recently applied to literary fiction (see Schneider & Hartner, 2012). Three models were chosen because of their clear cognitive claims and roots, and their increasing popularity for the analysis of literary fiction.

In the following chapters, I will compare the central tenets of these three theories, while examining possible theoretical overlap as well as their cognitive validity, value and limitations. In chapters 2 to 4, I will shortly introduce the origins, central tenets and limitations of respectively Schema Theory, Text World Theory and Conceptual Blending. Consecutively, in order to illustrate the three theories, three analyses of a short story by Ernest Hemingway, namely *A Pursuit Race* (see appendix), will be conducted by applying the three models in chapter 5. Chapter 6 consists of a discussion concerning the cognitive and empirical validity of the theories' claims. Then, in order to assess their relation both 'comprehension and interpretation' and 'explaining and understanding', I will discuss and compare the objects of study, goals, concepts and methodological value of the theories in chapter 7. Finally, a general conclusion will be drawn in chapter 8. In doing so, the present dissertation aims to examine the complex web of cognitive theories swarming the field of literary

studies and establish whether and how these theories can be valuable for the analysis of literary fiction.

2. Schema Theory

Schema Theory is originally a psychological theory of memory developed by cognitive psychologist Frederic Bartlett (1932) in *Remembering: An Experimental and Social Study*. Schemata are integrated packages of knowledge about the world, objects or people (Eysenck & Keane, 2015, p.321). We organise our everyday experiences by means of schemata. Consider the following example from Schank and Abelson (1977, p.36): When we go to a restaurant we know what to expect even if we have never been there before. We expect to be seated at a table and given a menu, from which we have to choose something to eat and drink. All the relevant information about restaurants generalised from previous restaurant experiences is stored in an abstract restaurant-schema. The restaurant-schema enables us to function not only in restaurants where we have been before but also in a new restaurant because we develop expectations based on the schemata formed by prior experiences. Conversely, we are sometimes faced with situations in which we do not know how to behave or what to expect, for example in a foreign country, because we do not yet dispose of a schema that fits the circumstance.

However, as van Dijk and Kintsch (1983, p.3) explain, it is not until the 1970s that Bartlett's theory became influential because of the behaviourist paradigm, dominant until the 1950s, bypassed every internalist hypothesis of mental life. The first to embrace Schema Theory were studies into Artificial Intelligence (henceforth AI) (e.g. Schank & Abelson, 1977). Schema Theory also appeared to be necessary for developing a model for text comprehension which needs to include not only language but also world knowledge (e.g. Charniak, 1975). After Schema Theory's revival in AI and computer sciences in general, it was picked up by other fields and eventually made its way into literary studies (e.g. Cook, 1994) and stylistics (e.g. Semino, 1997) in the 1990s via the field of discourse analysis (e.g. Emmott, 1997). Although schema theory has had a fruitful influence in these fields, the expansion of Bartlett's theory has led to a proliferation of theories and terminologies. Schema theorists often come up with new concepts and new terms which too often repeat or redefine old ideas (Cook, 1994, p.20). Minsky (1975) uses 'frames', Cook (1994) prefers Bartlett's 'schemata', Schank and Abelson (1977) study 'scripts' and Sanford and Garrod (1981) speak of 'scenario's' which are all more or less synonyms. Emmott and Alexander (2014, p.756) claim that frames and schemata are synonyms but that scripts are temporarily-ordered schemata and that a scenario contains situational knowledge. Nevertheless, terminological confusion seems unavoidable at this point.

In order to provide a clear understanding of Schema Theory, I will first discuss its psychological basis and development in the field of cognitive psychology. Then, I will summarise the script theory proposed by Schank and Abelson (1977), which has had most influence on schema theorists. Finally,

the role of Schema Theory in literary studies will be studied by focussing primarily on Cook's (1994) theory of 'Discourse Deviation'.

2.1. Psychological Schemata

Schema Theory is essentially a theory of memory. The theory explains how information is stored and recollected, and how this knowledge enables us to function in new situations (e.g. taking a new bus line). The central claim is "that a new experience is understood by comparison with a stereotypical version of a similar experience held in memory" (Cook, 1994, p.4). Bartlett (1932, p.197-198) states that our long-term memory is organised by packages of knowledge, which he calls schemata. In other words, our memory constructs a stereotypical version of an event (e.g. taking the bus) based on several different, though similar, experienced events (e.g. I took line 9 yesterday and I took line 3 last week). Consecutively, a new event (e.g. taking line 13) is understood by comparing it with the stereotypical event stored in our long-term memory, namely taking the bus. In that manner, Schema Theory forms the link between episodic memory (memory of specific events) and semantic memory (long-term memory), because schemata are part of our semantic memory but are constructed using information from the episodic memory. However, this seems an awfully complicated theory to explain why we know how to take a bus. As a reaction to this intuitive thought Johnson-Laird (1983, p.x) claims: "That is the nature of many problems about the mind: we are so familiar with the outcome of its operations, which are for the most part highly successful, that we fail to see the mystery".

Consequently, the operation that underlies taking a new bus line, might be more revealing than it seems at first glance. Several studies, for instance, have showed that schemata can distort our memory (Eysenck & Keane, 2015, p.321). Sulin and Dooling (1974) presented participants with a text about a ruthless dictator named either Gerald Martin or Adolf Hitler. The recall by participants in the Hitler-condition was distorted by schematic knowledge not present in the text (see also Tuckey & Brewer, 2003).

It goes without saying that Schema Theory is not only crucial for theories of memory, but also for a theory of narrative, as the aforementioned experiments have showed. When it comes to reading narrative texts, schemata influence both text comprehension and text recall (Bransford & Johnson, 1972, p.722). Bartlett (1932) already found that information fitting a certain schema (high-schema-consistent) is recalled better than information that fits the schema poorly (low-schema-consistent) (see also Anderson & Pichert, 1978, p.22). For instance, I will recall the kitchen knife lying in my kitchen better than a pile of papers. However, when something is remarkably schema-inconsistent, such as a cardboard clown, recall is significantly higher (see Steyvers & Hemmer, 2012, p.137). Furthermore,

schemata also add schema-related information to our recall of experiences, even if this added information was not present at the time (e.g. Brewer & Treyns, 1981, p.229). Brewer and Treyns (1981, p.216), for instance, found that when participants were first put in a typical student room, they all claimed with certainty to have seen a filing cabinet afterwards, even though there was no filing cabinet present.

Although Schema theory has been eclipsed from the 1940s until the 1970s, it has been considerably influential in psychology the last decades. Still, there are some significant limitations to the theory. First, there is no clear definition of a schema, nor has it been established what kind of information is stored in it (Ghosh & Gilboa, 2014, p.105). Secondly, it is hard to say when and how a certain schema is activated (Harley, 2013, p.382). Moreover, schema theory focusses on top-down-effects and in doing so bottom-up-effects tend to be neglected (see Wynn & Logie, 1998, p.16-17; Kintsch, 1998, p.49). Finally, apart from the methodological flaws in Bartlett's study (see Roediger, 2010), it is challenging to provide direct evidence for the existence of schemata. Although neurological studies suggest that schema processing is correlated with activation in the prefrontal cortex (e.g. Cosentino et al., 2006; Farag et al., 2010), neuroimaging studies are a priori indirect and suggestive (see Purves et al., 2008, p.34-35). Nevertheless, the abundance of indirect evidence (Eysenck & Keane, 2015, p.437-440) underlines the value of the theory.

2.2. Schema Theory's Revival in AI

AI can be defined as the study and development of computers with human intelligence (Nilsson, 2014, p.1). Consequently, one of the main issues at hand is that of text comprehension and more precisely the problem of inference making. When people communicate they seldom provide every piece of information needed for a clear understanding. Instead, much needs to be inferred and this poses some serious problems for AI (see Schank, 1984, p.83). Not only must computers dispose of a large amount of knowledge about objects, actions and the relations between them, this information must be adequately stored to be retrieved when necessary. It is for this problem that Schema Theory was adopted by AI scientists. The most influential AI approach to Schema Theory is the seminal work of Schank and Abelson (1977), which will be introduced in the following paragraphs.

At the basis of Schank and Abelson's (1977) thought lies the belief that in order to understand text coherence, form is not the answer. 'The meaning of a text is more than the sum of the meaning of the individual sentences' (ibid., p.22). Rumelhart (1975, p.212-213) argues that understanding a text is just a matter of finding a script that fits. This idea underlies the general vision of AI scientist, namely

that texts build on general knowledge and this knowledge is stored in scripts. When a piece of information in a text fits a certain script, this script is activated and develops expectations for the rest of the text. For instance, when a passage mentions a man pouring himself a drink, we expect that the man will consume his drink as well. Moreover, when the text then describes the man leaving the room, we infer that he has finished his drink, even if the text does not mention this explicitly.

On the one hand, scripts enable texts to leave some information out and on the other they enable the reader to fill in the missing slots. Schank and Abelson (1977), start from this constructivist principle that says that many causal links needed for comprehension are not stated in natural language but they can be filled in when required (Cook, 1994, p.79). In their book *Scripts, Plan, Goals and Understanding* (1977), they provide a complex and comprehensive theory of how information is stored and retrieved during text processing. The theory consists of a hierarchy of different levels of schemata. When one level is unable to account for a situation, the level above is addressed. The levels in increasing order are as follows: scripts, plans, sub-goals, goals, themes. In order to illustrate these terms, I will use examples from Ernest Hemingway's *A Pursuit Race* (see appendix).

Scripts

First, Schank and Abelson define scripts as "a whole of connected slots and requirements of what can fill those slots" (1977, p.40) and they "describe appropriate sequences of events in a particular context" (p.41). Each script has its own number of slots "whose realization can be assumed unless there is information to the contrary" (Cook, 1994, p.81). These slots are the number of props, the roles of participants, scenes and their sequence, the entry conditions and results. The title of Hemingway's short story can already activate a script:

- props: cycling track, bicycles
- roles: cyclist, referee
- scenes and sequence: start, race, finish
- entry condition: ambition to win
- result: a winner

In addition, Schank and Abelson (1977, p.46) claim that scripts are activated by means of any number of headers. When a reader encounters a header, a script is activated. Furthermore, Schank and Abelson distinguish between fleeting and non-fleeting scripts. Fleeting scripts are scripts activated by a header but not treated explicitly by the rest of the text. An example of such a fleeting script can be found a little further in the text, where we read 'Kansas City', which is not elaborated in the text but

activated nonetheless. On the other hand, a script is non-fleeting when the text explicitly fills in other slots. This is the case with the pursuit race script.

Plans

Secondly, plans are very similar to scripts but their slots are less explicit. Some situations are too novel or unpredictable to be understood by applying a script. More precisely, plans are activated for situations for which the reader has not yet constructed a script. There are no specified props, roles or places. For example, in 'A Pursuit Race', William Campbell's goal is to stay ahead of the burlesque show. A possible plan for this could be 'to hurry', of which the reader has a general idea rather than a specific script with fixed roles, props and places.

Goals and sub-goals

Thirdly, Schank and Abelson (1977, p.102) state that when it is unclear what the plans are of a certain character, we use our knowledge about the character's goals to understand the course of action (e.g. satisfaction, achievement, preservation, crisis handling, enjoyment). The concern (and actions) of Mr. Turner, can be explained by the main goal of preservation, namely economic stability. Sub-goals are subordinate goals put forward to achieve a main goal (Schank & Abelson, 1977, p.111-119). For instance, Mr. Turners goal of preservation is pursued by means of economic gains.

Themes

When it is hard to understand the goal of a certain character, reference to themes might provide understanding. Schank and Abelson (1977, p.132) stress that explanations at the level of themes are beyond the scope of text comprehension. Consequently, themes belong more to the realm of interpretation. Even if we do not fully understand Campbell's self-destructive satisfaction (goal), inferring that the text thematises 'addiction' or 'addict', helps us place the unfamiliar goal in context.

In conclusion, Schank and Abelson's theory (1977) of scripts, plans, goals and themes seems abundantly detailed. However, there are some limitations to the theory. Cook (1994, p. 121-122) stresses that although Schank and Abelson's theory seems to suit simple texts very well, it is not suited for analysing more complex literary texts. First of all, not all scripts have clearly definable slots. Secondly, the distinction between scripts, plans, goals and themes is sometimes fuzzy and impossible to maintain. Moreover, Cook (ibid.) indicates that the theory does not include text-structural connections between parts and therefore neglects the linguistic character of the text. Finally, Cook (ibid.) admits that the theory results in terribly complex analyses vulnerable for mistakes due to the

fuzzy terminology. Consequently, if literature is to be analysed by means of schemata, the theory has to be reasonably simplified and adapted for literary purposes. Such an adaptation was done by Guy Cook himself in his theory of 'Discourse Deviation' (1994), which will be treated in the following paragraphs.

2.3. A Theory of Discourse Deviation

In his book *Discourse and Literature* (1994) Guy Cook develops his own schema theory attuned for literary analysis. It is constructed around the main idea that literature has the tendency to alter existing schemata on the phonetic, text-structural and general knowledge level. To arrive at this insight, Cook (1994) builds on elements from four different traditions, namely discourse analysis, psychology, AI and Russian Formalism.

First of all, Cook's earlier work can be situated within the field of discourse analysis, which studies discourse comprehension on a text-level. This means that discourse analysts aim to provide a set of rules for the comprehension of discourse above sentence level (e.g. Rumelhart, 1975). One of the key tenets is that texts establish semantic cohesion by building on the reader's background knowledge (Emmott, 1999, p.22-85). This is where schemata come in. All this knowledge has to be stored and retrieved in a certain way. Although discourse analysis has made many crucial contributions to our understanding of text comprehension, there are some limitations for the study of literary texts. For instance, discourse analyses often build on the cooperative principle of Grice (1967) and the politeness principle of Lakoff (1973). The former is the principle that discourse participants cooperate to achieve understanding and the latter states that discourse participants communicate respectfully to maintain social relations. However, both principles fit literary discourse poorly as literary texts are sometimes offensive or deliberately hard to understand. A more important critique of Cook (1994, p.54) is the fact that schemata are often treated by discourse analysts as static and stable concepts, which would mean that texts could never change our world knowledge. For Cook (ibid.), schemata are dynamic and vulnerable to change.

Secondly, Cook (1994) builds on both Bartlett's *Remembering* (1932) and Schank's (1982) *Dynamic Memory* to account for this change. World knowledge in the form of schemata does not just impose understanding on a text, a text influences our schemata as well. Schank (1982) wondered how scripts could be altered by new experiences and how it is possible that we sometimes recall parts of scripts instead of the whole. For this purpose, Schank (1982, p.98) came up with the concept of Memory Organization Packages (henceforth MOPs). MOPs are generalised memories which are the foundations for new memories. MOPs consist of scenes which are selected to construct new scripts. When a new experience occurs at least two times a new scene is constructed for the related MOP. For

instance, when the chair I'm sitting on unexpectedly breaks twice in one month's time, a new 'breaking-scene' is constructed in the 'MOP sitting'. For Cook (1994), this Schankian view on memory is crucial. He uses it as proof for the dynamic character of schemata, which underpins his theory of discourse deviation.

The last step in Cook's (1994) reasoning comes from literary studies, in particular from the Russian Formalists. Their prior concern was the linguistic beauty and distinctive character of literary texts often ignored by contemporary literary criticism. Russian Formalists rebelled against the biographical and historical tradition (e.g. Tomashevsky, 1923; Tynyanov & Jakobson, 1971). Cook (1994) adopts the Russian Formalist concept of defamiliarisation (*ostranie*; Shklovsky, 1940; 2015) and applies it to every level suggested by discourse analysis, namely phonological level, text-structural level and the level of world knowledge. Just as the Russian Formalists believed that literariness could be found in linguistically deviant form, Cook (1994, p.191-192) believes that literature distinguishes itself by means of discourse deviation.

Cook's (1994) theory of discourse deviation builds on the formal and linguistic schema-approach of discourse analysis, the Schankian view on dynamic memory and the Russian Formalist notion of defamiliarisation, but what does the theory claim? First of all, for Cook (1994, p.191-192) the distinctive characteristic of literature is its defamiliarising form and content which cause schema refreshment. Cook (1994, p.122) applies a simplified version of Schank and Abelson's (1977) theory distinguishing only three levels, namely 'scriptlike-schemata' (§§), plans (II; i.e. plans and sub-goals) and themes (⊙; i.e. goals and themes). Moreover, he distinguishes between three types of schemata according to their discourse levels: world schemata, text schemata and language schemata. Literary discourse is discourse that has once refreshed or still refreshes the world schemata of the reader. However, according to Cook (1994, p.201), literary discourse deviates not on one of these levels but through the interaction of these levels. All three levels must be investigated, because a literary world "is an illusion brought into being through the language and text structure" (Cook, 1994, p.197-198).

Although Cook (1994) has elegantly combined valuable insights and concepts of many different and influential traditions, a few comments to the theory must be made. First, in order to successfully combine these traditions, he has been forced to perform some necessary simplifications. His reduction of Schank and Abelson's (1977) five different levels of text comprehension to only three is barely justified and almost appears to be off the cough. Furthermore, even though Cook (1994, p.188) explicitly mentions Schank's (1982) claim that a new experience needs to occur twice for a new scene to be constructed, discourse deviation immediately causes schema refreshment in Cook's theory.

Moreover, although Cook (1994, p.186) admits that MOPs are crucial constructs for schema refreshment, his theory on discourse deviation implies schema refreshment without the need to explain how new scenes are constructed in MOPs. Another important critique towards Cook's (1994) theory is the fact that it is highly indebted to the West-European and modern notion of literature as being creative in language and original in thought (Semino, 1997, p.154). Semino (ibid.) stresses, however that "discourse deviation is not limited to literature and that not all texts that are considered to be literary display discourse deviation". On the contrary, some literary texts can be considered as schema reinforcing (see Jeffries, 2001, p.327; Semino, 1997, p.154; 2001, p.347). Semino (1997, p.154) therefore focusses on less "dramatic and less permanent experiences" such as unusual schema connections or schema awareness. This approach is more cognitively plausible (Semino, 2001, p.351) and lies closer to the original notion of schema within the field of psychology, instead of the phenomenologically inspired version (e.g. Ingarden, 1972; Iser, 1971, 1972) of Cook (1994). Finally, whether a schema is activated or not and whether discourse is deviating or not, depends on the reader, something Cook (1994, p.171) himself repeatedly admits. Cook's (1994) analyses of texts are all personalised interpretations. Consequently, one of the many critiques of this schema approach is that not many different interpretations are discussed except from the main one that is proposed for each text (Semino, 2001, p.348). Nevertheless, empirical evidence suggests that readers applying different schemata end up with different reaction to it (e.g. Steffensen & Joag-Dev, 1984; Clapham, 1996). Therefore, a schema-based approach should emphasise multiple possible readings, which is something that schema theorists have hitherto failed to provide.

2.4. Which Schema Theory?

As I have showed, there are many different schema-based theories and approaches. I have summarised the most important but of course not all of them. Schema theory has contributed not only to the concept of literariness, but also to research into text comprehension, memory and interpretative studies. In all these contributions, schemata have taken on different forms (scripts, frames, scenarios). The question, however, remains what we understand under schema theory in this dissertation. First of all, I will be using the term 'schema' in the rest of this dissertation, not only because a clear choice must be made, but also because I aim to stay as close as possible to the original psychological concept. Secondly, I will build on Cook (1994), because it has proved to be a valuable analytic instrument. Nevertheless, we shall take into account the aforementioned comments and nuances of Semino (1997; 2001) and Jeffries (2001). In order to stay as close to the psychological concept of schemata as possible, I will indicate in my analysis how activated schemata can affect story recall stressing the plethora of possible readings of a literary text as both Semino (2001, p.347) and

Jeffries (2001, p.341). For this purpose, my version of schema theory adopted in this dissertation will be indicating where (world, text, language) schemata, plans and themes are possibly activated and connect them at the end in different ways suggesting how a different activation of schemata can direct attention to different aspects of the literary text and affect possible story recall and story understanding.

3. Text World Theory

Text World Theory is first and foremost a cognitive linguistic model of discourse processing. It was first developed by Paul Werth in a series of articles (Werth 1994, 1995a, 1995b, 1997a, 1997b) and a monograph published posthumously (Werth, 1999), namely *Text Worlds: Representing Conceptual Space in Discourse*. The origins of Werth's ideas are based within the field of cognitive linguistics and cognitive grammar in particular (Hamilton 2003; Langacker 1987, 1991, 1999, 2008; Stockwell 2002, 2009). Moreover, Text World Theory is overtly indebted to other 'world' theories such as possible-worlds Theory (Doležel, 1995; Eco, 1989; Ryan, 1998), Contextual Frame Theory (Emmott, 1997), Mental Space Theory (Fauconnier 1994, 1997) and cognitive psychological concepts such as Mental Models (Johnson-Laird, 1983) and Situation Models (van Dijk & Kintsch, 1983). Text World Theory aims to account for the cognitive processes that underlie both production and interpretation of all forms of discourse (Whiteley, 2010, p.18). For this purpose, Text World Theory describes how discourse is represented and how these representations are structured in the mind of its participants (Gavins, 2007, p.8). According to the theory, mental representations of the discourse are structured in text worlds, i.e. experiential and embodied mental spaces which are built as we read (Werth, 1999, p.7). Discourse processing then consists in building up, altering and switching between different text worlds. Text World Theory has had a very appealing effect on the academic community (Gavins, 2007, p.7) and has had a profound influence on the fields of stylistics and cognitive poetics (Whiteley, 2010, p. 17). Consequently, the theory has been applied to a vast range of text types such as advertisements (Gavins, 2007; Hidalgo Downing 2003b), political discourse (Chilton, 2004), poetry (Hidalgo Downing, 2002; Lahey, 2003, 2004, 2006; Stockwell 2002), literary fiction (Al-Mansoob, 2005; Gavins, 2000, 2001; Hidalgo Downing, 2000a, 2000b) and drama (McIntyre, 2004).

This chapter is an introduction into Text World Theory. First, an overview of its main precursors, namely Possible-worlds Theory, Mental Models and Contextual Frame Theory will be provided. Secondly, we will introduce the central tenets of Text World Theory as developed by Paul Werth (1999) and refined by Joanna Gavins (2001, 2007) and Sara Whiteley (2010, 2011). Finally, some limitation of the theory will be discussed.

3.1. Three Theories of Mental Representations

First, Text World Theory is heavily indebted to possible-worlds theory, which is originally a form of propositional logic. The aim of the theory was to extend truth values to hypothetical propositions (e.g. Kripke 1972; Lewis, 1986). Since the 1980s the theory was discovered by literary theorists, who adopted it to analyse the worlds created by texts (Whiteley, 2010, p.19). According to Ryan (1991),

while reading literary texts, readers construct immersive worlds, which are conceptual in nature and caused by linguistic cues. These text worlds are formed out of the actual world and can be defined as parasitical to it (Eco, 1990, p.65). Building on Doležel (1976), Ryan (1991, p.114) puts forward four different so-called modal worlds (e.g. belief, obligation, wish) which Text World Theory adopted (Gavins, 2007, ch.6-7). Possible-worlds theory enables us to examine plot development through the relations and possible conflicts between the actual text world and the modal worlds or between/within modal worlds. However, possible worlds are both 'tailormade' to single situations and minimalistic because they don't display the same complexity and richness of the actual world (Werth, 1999, p.70).

Secondly, Werth (1999, p.72-74) acknowledges that his notion of text worlds largely coincides with Johnson-Laird's theory of mental models (1983) and van Dijk and Kintsch's (1983; van Dijk, 1995) theory of situation models. Both stem from cognitive psychological research into discourse-processing and claim that language comprehension necessarily involves building up mental representations of what is described in the text (Zwaan & Radvansky, 1998, p.162). The models consist of 'people, objects, locations, events and actions described in the text' (Zwaan, 1999, p.15) and display a certain richness which is directly acquainted with the world (Johnson-Laird, 1983, p.419). Consequently, the advantage of mental models for Paul Werth's theory, was this level of richness that possible-worlds theories lacked (Werth, 1999, p.73). In addition, Werth's text worlds resemble the mental models because they are both embodied and experiential in nature (Whiteley, 2010, p.21), which means that they are not only spatial but also sensory including sent, taste and so on (Werth, 1999, p.37). However, Werth (1999, p.73) indicates that mental models were never successfully applied to texts and that Johnson-Laird (1983) never really developed the richness in his examples as he claimed (see also Bortolussi & Dixon, 2003, p.14; Gerrig, 1993, p.5-6)

Finally, Emmott's Contextual Frame Theory (1997, 2003) was developed almost simultaneously with Text World Theory to which it is very similar (Whiteley, 2010, p.25). Indeed, both Emmott (1997, p.56-57; 2003, p.145) and Werth (1999, p.82) overtly acknowledge the similarities. Both theories claim the mental representations are crucial for linguistic discourse comprehension and that they are constructed through the interplay of textual cues and reader's knowledge (Whiteley, 2010, p.26). Emmott's (1997) theory is mainly concerned with 'contextual frames' (see Minsky, 1975), which are built on textual cues. As we read, we build up a vast number of frames which are temporarily stored. In her refined version of Text World Theory, Gavins (2001, 2007) explicitly uses terminology from Contextual Frame Theory such as world-switch (see below). The main difference between both

theories is that Contextual Frame Theory does not include a discourse world where the discourse participants reside (see chapter 3.2).

3.2. Central Tenets of Text World Theory

Discourse worlds and text worlds

The first main distinction in Text World Theory is between text worlds and discourse worlds. Because Text World Theory is a discourse framework, its scope goes beyond just texts. Text World Theory studies entire texts as well as the context in which they are produced and interpreted (Gavins, 2007, p.7). By doing so discourse participants are not decontextualized minds, but human beings with beliefs, emotions, cultural and personal background knowledge and so on (Whiteley, 2010, p.28). The situation in which the discourse takes place is called the discourse world and the mental representations that are constructed as the discourse progresses are called text worlds. In face-to-face communication, the discourse world is the here and now (Werth, 1999, p.85) but in written communication, the discourse world is split in both spatially and temporally. According to Gavins (2007, p.129), when the discourse world is split, discourse participants first create a text world in which the face-to-face situation is re-established. In other words, the first text world of a written texts features a projection of the author and of the reader as enactors. Werth (1999, p.117) boldly claims that whenever engaging in discourse, participants take with them all knowledge which is available to the human race, which is stored and schematised in 'frames' (Gavins, 2001, p.19; for a critique see chapter 6). Which information is activated during discourse processing is governed by the principle of text-drivenness, which means that frames necessary for discourse comprehension are activated by textual cues.

Building up and advancing text worlds

Text worlds are the mental representations that discourse participants form of the situations mentioned in the discourse in order to achieve comprehension (Whiteley, 2010, p.34-35). These representations are formed and driven by textual cues. There are two types of information that a text can provide. The first are world-building propositions (also world-builders), such as location, time, objects and enactors (Whiteley, 2010, p.35). These world-builders can be further specified by relational processes (e.g. adjectives) The second type of information are function-advancing propositions (or function-advancers), which describe actions that are performed in the foreground and are the motors that drive a discourse forward (Gavins, 2007, p.56). Gavins (2007, ch.3-4) has further developed both the typology of world-builders and function-advancers based on Halliday's

Systemic Functional Linguistics (1985, 1994), which I will not discuss in detail. In order to illustrate the process of world-building, we will give an example from Hemingway's *A Pursuit Race*:

(...) he might as well stay in bed. It was very cold in Kansas City and he was in no hurry to go out. He did not like Kansas City. He reached under the bed for a bottle and drank. It made his stomach feel better. Mr. Turner, the manager of the burlesque show, had refused a drink. (Hemingway, 1987, p.267)

The text world that is constructed upon reading this extract can be seen in figure 1. We have adopted the same lay-out as Gavins (2007) because of its clear nature. In the upper box we can see the different world-builders present in the extract which form the background of our text world and consequently our mental representation of the situation. The relation processes are indicated with a horizontal arrow. In the lower box, function-advancers are represented by the downward arrows.

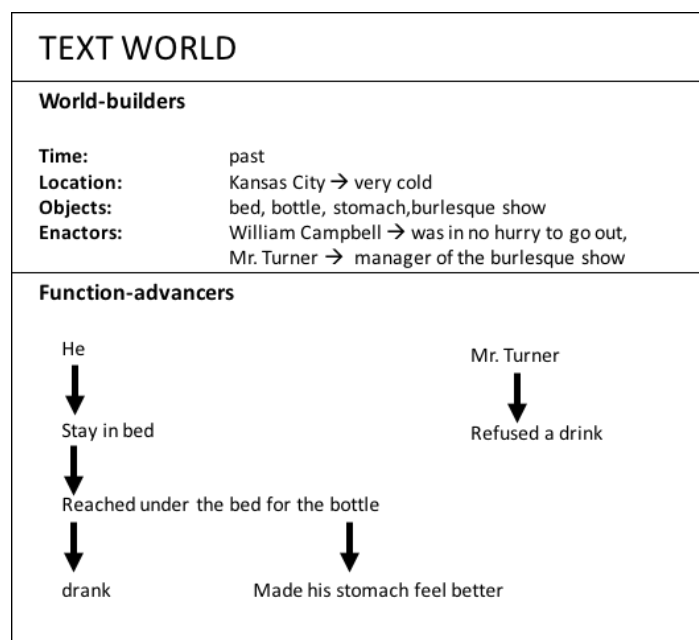


Figure 1: Building a text world

World-switches

Since communication is often highly dynamic and consequently shifts topic more than once, Text World Theory needs to account not only for the change within text worlds but also for the shifts to other text worlds (Gavins, 2007, p.45). Paul Werth (1999) uses the term 'sub-world' to indicate text worlds which originate from other text worlds. These sub-worlds have the same structure as other text worlds with world-builders and function-advancers and can be equally detailed and rich. Werth

distinguishes three categories of sub-worlds, namely deictic (time, place, focus), epistemic (knowledge and belief) and attitudinal (wish, obligation) (1999, p.216). However, according to Gavins (2007, p.246), Werth's (1999) terminology of sub-worlds suggests a hierarchy which is misleading because sub-worlds can become dominant in the reader's mind. Therefore, Gavins (2007, ch. 6-7) loses the prefix and distinguishes only two types: deictic sub-worlds are called world-switches, in analogy with Emmott's (1997) frame-switches, and the attitudinal and epistemic worlds are called modal worlds, which express modalised propositions which are not realised at the time or place in from which the modal world originates. Gavins (2007) distinguishes three kinds of modality that can cue modal worlds, boulomaic modality (desires and wishes), deontic modality (obligations) and epistemic modality (knowledge and belief) (see Simpson, 1993). Epistemic modal-worlds are the most frequent and can express different degrees of truth and confidence by using lexical epistemic cues such as *suppose, believe, know, maybe* and *possibly* (Gavins, 2007, p.110). When considering all these modal worlds, a Text World Theory analysis becomes more nuanced but also more complicated. To illustrate the notion of world-switches and modal worlds we will give the structure of text worlds based on the following extract from *A Pursuit Race*:

The burlesque show caught William Campbell at Kansas City. William Campbell had hoped to hold a slight lead over the burlesque show until they reached the Pacific coast. As long as he preceded the burlesque show as advance man he was being paid. When the burlesque show caught up with him he was in bed. He was in bed when the manager of the burlesque troupe came into his room and after the manager had gone out he decided that he might as well stay in bed. It was very cold in Kansas City and he was in no hurry to go out. He did not like Kansas City. He reached under the bed for a bottle and drank. It made his stomach feel better. Mr. Turner, the manager of the burlesque show, had refused a drink. (Hemingway, 1987, p.267)

We have schematised the network of text worlds in figure 2. The first text world is the one in which the Burlesque show caught up with William Campbell. Text world 1 structures our mental representation of what happens in the room of William Campbell. Moreover, five modal worlds originate in this text world. The first modal world has the boulomaic modality and represents William Campbell having a slight lead over the burlesque show. Since this situation is not realised but merely desired by the character, this representation is stored in a modal world. Within this modal world, our mental representation undergoes a further world-switch into a future world where the burlesque show has reached the Pacific shore. Furthermore, there are two epistemic modal worlds. Finally, in

Text World Theory, negations are epistemic modal worlds, since they express the non-occurring of a situation. Consequently, what is represented in our mind is the occurring event with the modality of negation.

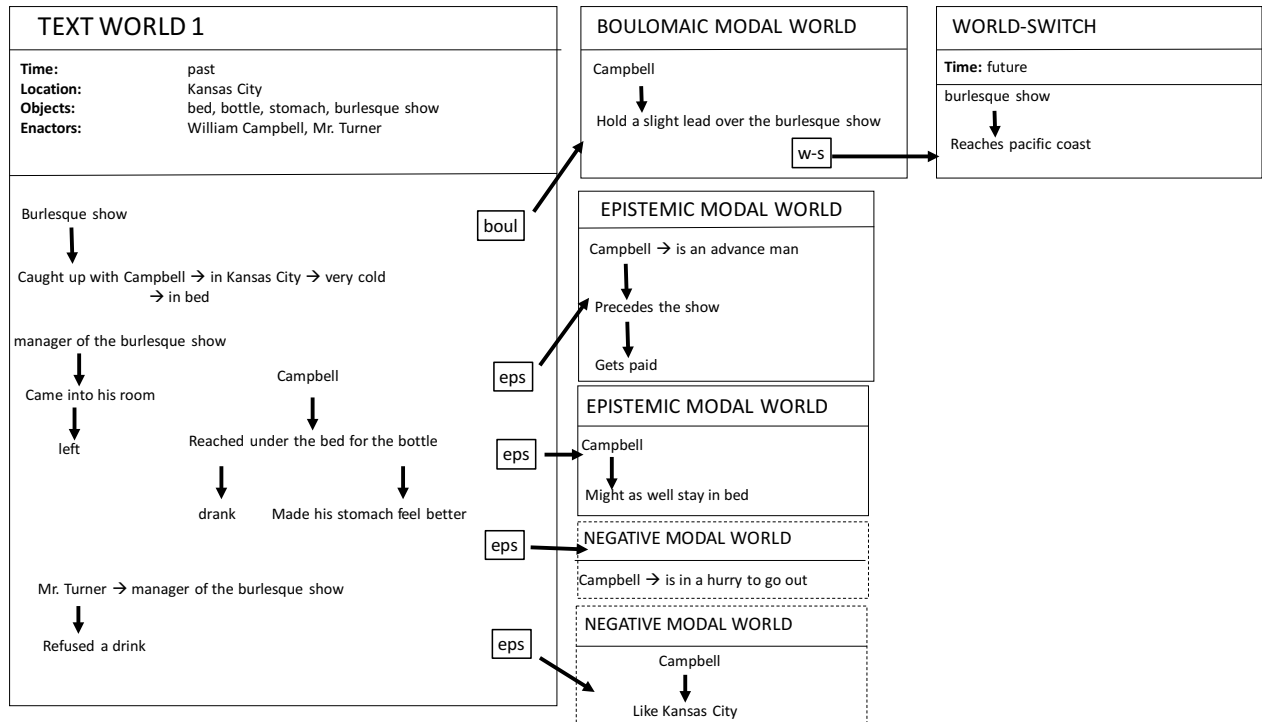


Figure 2: Network of text worlds, world-switches and modal worlds

Accessibility

World-switches and modal worlds can be evoked by both discourse participants and text world enactors. This, however, results in different ontological statuses and consequently different degrees of accessibility (Gavins, 2007, p.76). For Text World Theory, discourse participants are considered to follow Grice's (1975) principle of co-operativeness (participants follow other principles truthfully in order to establish a Common Ground, i.e. common mental representations) (Gavins, 2007, p.76; Werth, 1999, p.49). As a result, we expect the information of the worlds created by participants to be truthful. Worlds created by participants are called participant-accessible because they can be verified by the other entities on the same ontological level. Conversely, worlds created by text world enactors cannot be verified by participants, because of the ontological distance. These text worlds are merely enactor-accessible and are perceived as less reliable than participant-accessible text worlds. We can compare this with a trial: witnesses are only allowed to deliver a testimony of what they have seen or know directly, not about what someone else knows or has seen. Moreover, enactors are not obliged to follow the principles of discourse (Werth, 1999, p.188) and therefore discourse participants cannot immediately assess the truthfulness of what is represented in these text worlds. Participants can only

be certain that the beliefs of an enactor are true within its modal world but not beyond. "We can say then, that the principles of discourse apply in any world set up by a protagonist - the text world for a participant and a sub-world for a character" (Werth, 1999, p.190).

Participation-worlds

Although Text World Theory was developed as an experiential theory of discourse processing (Werth, 1999), it is only recently that the emotional implications of reading have been addressed within the text world framework (Lahey, 2005; Stockwell, 2009; Whiteley, 2010; 2011). Rapp and Gerrig (2006, p.66) claim that models of text-processing must include participatory responses. Moreover, Gerrig (1993, p.66) stresses that emotional responses of participants are significant for discourse processing. Sara Whiteley (2010, 2011) has extended the scope of Text World Theory to include emotional responses of readers. For this purpose, Whiteley (2010, p.175-179) has developed 'participation-worlds', which are hypothetical imagined outcomes reflecting the involvement of the participant in the discourse. In order to clarify these participation-worlds, we have analysed the same extract as above of *A Pursuit Race* (see figure 3).

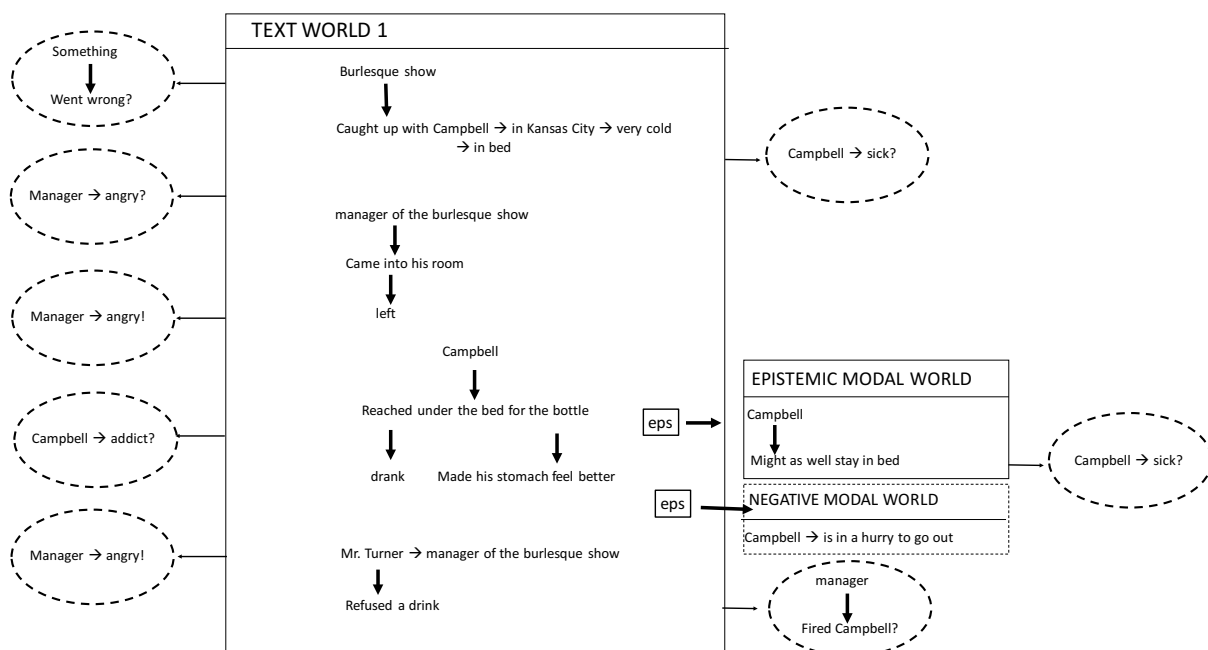


Figure 3: Possible participation-worlds of the reader (not all modal worlds and world-switches are shown)

In figure 3 we have schematised the possible participatory responses and inferences of readers when reading *A Pursuit Race*. These hopes, beliefs and inferences are displayed in the oval dashed boxes at the side of the text world. These participation-worlds enable us to focus on how the mental representations of a text steer the reader's expectations. For instance, at the beginning the reader

does not yet know why Campbell is caught by the burlesque show. The reader might ask him/herself whether something happened. Consecutively, when the reader learns that Campbell lays in bed and does not want to come out, a possible and logical explanation is that Campbell is too sick to go on. This expectation, however, is not met as the reader then infers that Campbell is drunk and possibly an addict. Moreover, another probable expectation is that the manager is angry, which is neither contradicted, nor explicitly confirmed by the text. The short sequence describing that the manager enters the room and apparently leaves almost immediately suggests that he is angry. In addition, the fact that the manager refuses the drink supports this. Consequently, the reader is led to believe that the manager is angry, although this is never confirmed, because he is not angry, as we will show in our full analysis of the short story in part 5.2.

Double-vision

In order to be an adequate model of discourse-processing, Text World Theory has to account not only for modalities and accessibility, but also for metaphorical language. Paul Werth (1994, p.79) states that although literary metaphors are often discursive and run through an entire text, most linguistic approaches are limited to sentence-level. However, literary texts often develop a certain metaphor through 'long stretches of text' (Gavins, 2007, p.150). According to Werth (1994, p.80) metaphors are characterised by the process of 'double-vision' (see also Ullmann, 1957). When a text is governed by a general megametaphor, it usually consists of several metaphorical elements (micro-metaphors) (Gavins, 2007, p.151). These micro-metaphors feed a parallel 'blended world' with elements from both metaphorical domains. "The participants in the discourse-world are able to manage all these mental representations simultaneously, toggling between worlds if necessary" (Gavins, 2007, p.152). Take the beginning of *A Pursuit Race* for example:

WILLIAM CAMPBELL had been in a pursuit race with a burlesque show ever since Pittsburgh. In a pursuit race, in bicycle racing, riders start at equal intervals to ride after one another. They ride very fast because the race is usually limited to a short distance and if they slow their riding another rider who maintains his pace will make up the space that separated them equally at the start. As soon as a rider is caught and passed he is out of the race and must get down from his bicycle and leave the track. If none of the riders are caught the winner of the race is the one who has gained the most distance. In most pursuit races, if there are only two riders, one of the riders is caught inside of six miles. The burlesque show caught William Campbell at Kansas City (Hemingway, 1987, p.267)

Figure 4 illustrates how the double-vision is created. The megametaphor that underlies this passage is AN ADVANCE MAN IS A PURSUIT RIDER. The main text is accompanied by a parallel blended text world that increments as micro-metaphors are provided by text. Each of these micro-metaphors bring with them associations and details into the blended world. Consequently, the blended world is gradually furnished by textual elements that have sprung from the main text world. The reader toggles between both worlds are engaged in a double-vision.

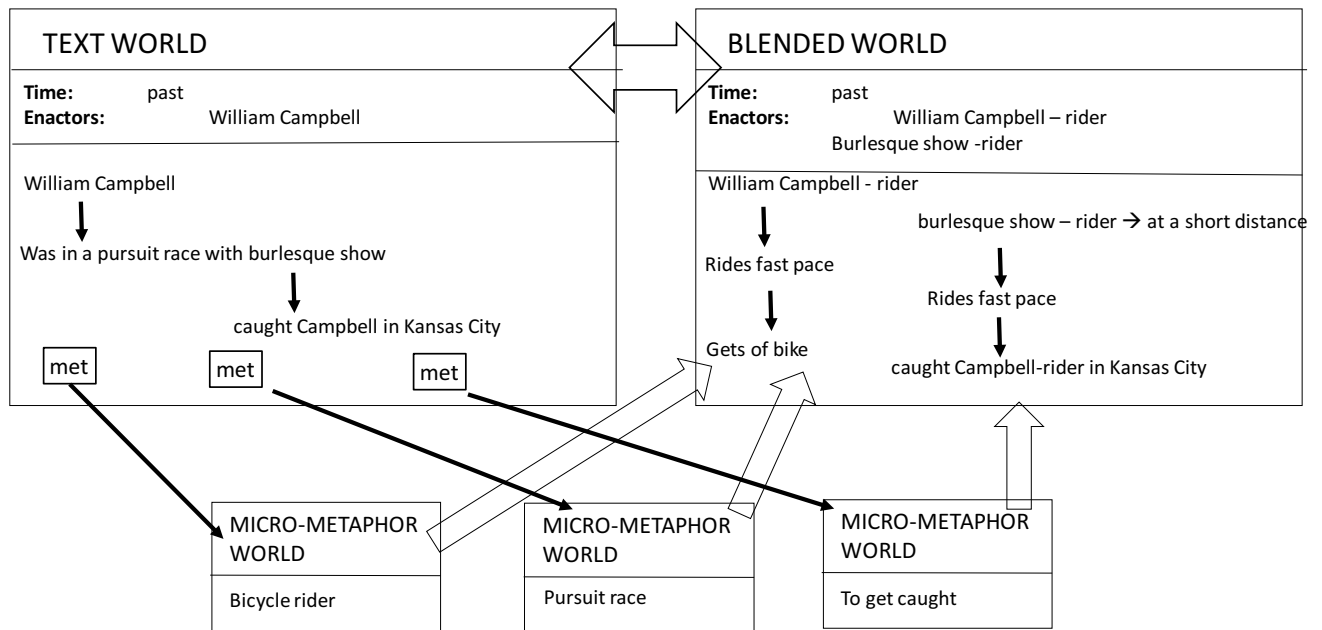


Figure 4: Double-vision of the beginning of *A Pursuit Race*

3.3. Limitations

The strength of Text World Theory is that it has successfully provided a model of 'complex mental representations that are incrementally set up by readers (or listeners) during text processing' (Semino, 2009, p.59). However, the theory displays some significant limitations, which will be elaborated in the following paragraphs.

Firstly, the detailed and rigid model of Text World Theory has a considerable methodological downside, namely its sheer complexity. Werth's (1999) model can be considered a nuanced but overly difficult theory of text worlds, sub-worlds, double-vision and so on. Semino (2009, p.59) stresses that although the theory provides a 'complex analytical machinery', its application becomes 'impossibly complicated when applied to stretches of texts longer than a few sentences'. For instance, it remains unclear where text worlds end, when a world-switch occurs and how these worlds are intertwined.

Secondly, models such as Text World Theory are frequently criticised for their complex and merely explanatory nature by scholars who are mainly interested in novel interpretations (Semino,

2009, p.55). Although, attacking the explanatory scope of Text World Theory seems to question the value of cognitive sciences altogether, it is undeniable that some aspects of the theory do provide very complex explanations for obvious problems, which are then simply justified by quoting Johnson-Laird, as I did earlier in chapter 2: 'That is the nature of many problems about the mind: we are so familiar with the outcome of its operations, which are for the most part highly successful, that we fail to see the mystery' (1983, p.x).

Thirdly, Text World Theory claims that it is not interested in new interpretations but provides an explanatory model of discourse processing. However, its explanatory model still lacks empirical validation. Because there is evidence for the importance of mental representations for discourse processing (e.g. Hjelmquist, 1984; Lovelace & Southall, 1983; Zwaan, 1993), text world theorists seem to assume that their complex model of mental representations are empirically grounded as well. Werth (1999, p.337-340), for instance, attempts to relate Text World Theory, and most basic claims of cognitive linguistics, to the biological structure of the brain, which consists of nodes and connectors. Werth (1999, p.339) boldly argues that these nodes and connectors are the neurological basis for concepts as figure and ground, nouns and verbs, landmarks and trajectors, main clauses and subordinate clauses and so on. Not only does Werth (1999) make a giant conceptual leap, he also fails to provide a single neurological study to support this view. In general, hitherto, no empirical evidence has been provided which indicates the existence of text worlds, modal worlds or the ontological distinctions as theorised by Text World Theory. Consequently, the value of Text World Theory as an explanatory and cognitive model of discourse processing can be questioned. In addition, Text World Theory appears to neglect some of the basic establishments of cognitive sciences regarding discourse processing. For instance, one of the central claims of cognitive linguistics and consequently cognitive poetics as well is the importance of figure and ground (Gibbs & Colston, 1995; Lakoff, 1987; Langacker, 1991). Active characters are usually foregrounded and receive the attention of the reader, while the background often fades away into neglect (Stockwell, 2009, p.18). Readers cannot simply focus on every detail of a text because 'attention is selective rather than an indiscriminating blanket phenomenon' (Stockwell, 2009, p.18). Nevertheless, the way in which Text World Theory represents discourse processing includes every linguistic detail. Moreover, although Werth (1999, p.103-115) builds on schema theory to explain how readers make inferences based on their knowledge, he does not take into account the top-down effect of schema's in memory and comprehension (e.g. Sulin & Dooling, 1976). In other words, Text World Theory uses the notion of frames to explain the reader's inferences but neglects the fact that schemata steer comprehension as well.

Finally, Text World Theory follows the 'text as world' metaphor which is dominant in cognitive psychology, cognitive linguistics and psycholinguistics (Gerrig, 1993; Ryan, 1998; Whiteley, 2010, p.6).

Consequently, there is a clear spatial bias, since entire narratives are explained through representational spaces. Recently, scholars have voiced their concerns with regard to this focus on spatiality and the neglect of temporality (e.g. Walsh, 2017). Walsh (2017) warns world theorists that treating the text processing as a network of worlds, foreground spatial cognition (p.273), while reading is essentially and 'irreducibly semiotic' (p.476). Consequently, readers deploy 'several distinct cognitive modelling strategies' in order to understand texts beyond spatial representations (Walsh, 2017, p.475). Nevertheless, a large body of evidence from cognitive psychology supports the spatial bias (e.g. Vandierendonck & De Vooght, 1996).

4. Conceptual Blending

Conceptual Blending Theory (sometimes also Conceptual Integration Theory) is a theory of human thought developed by cognitive psychologist Gilles Fauconnier and behavioural scientist Mark Turner in their seminal work *The Way We Think* (2002). Ralf Schneider (2012, p.1) calls the theory a landmark in the study of human thought. Conceptual Blending is a model of how the human mind generates new meanings through the input of different fields of knowledge. Moreover, according to Fauconnier and Turner (2002), the process of blending lies at the basis of almost every human action ranging from clock reading to solving riddles. The theory was originally a psycholinguistic theory of metaphor processing and is consequently heavily indebted to structure-mapping theory and conceptual metaphor theory and domain-mapping theories in general, which suggest that metaphors are processed by projecting elements from the metaphorical domain onto the literal context.

Firstly, according to the structure-mapping theory (Gentner 1983, 1988; Gentner & Markman 1997), the first step of metaphor processing is the structural alignment of the representations from the source and target domain which consist of objects, their properties and relations (Kelly & Keil, 1987). Once aligned, inferences are projected from the source domain on the target domain. (for empirical studies see Gentner & Clement 1988; Shen 1992; Tourangeau & Rips 1991). Secondly, Conceptual Metaphor Theory states that people possess general conceptual metaphors (e.g. UP IS GOOD, DOWN IS BAD), which they use to process a broad range of metaphorical expressions (Lakoff & Johnson 1980b; Lakoff & Turner 1989; Turner 1987, 1991). Furthermore, Gibbs and colleagues have provided abundant evidence that the processing of many verbal metaphors involve embodied simulation (Bergen, 2012; Gibbs, 2006; 2013; Gibbs et al., 2006; Santana & de Vaga, 2011). People understand metaphors by imagining that they experience the action implied by the conceptual metaphor themselves.

In the following paragraphs, the general mechanism of Conceptual Blending Theory will be first introduced using passages from Hemingway's short story, *A Pursuit Race*. Then its applications to literary texts will be treated in greater detail. Finally, we will discuss a few limitations to Conceptual Blending.

4.1. The Conceptual Blending Mechanism

The mechanism behind Fauconnier and Turner's (2002) Conceptual Blending is based on an integration network of different mental spaces. The process of conceptual blending starts with at least two different input spaces, which contain each a domain of knowledge of the world. Once these input spaces are activated, similarities are highlighted and structurally aligned just as in structure-mapping

theory. Roles, relations and actions that belong to both input spaces are structured in a generic space. Consecutively, the roles, relations and actions of the generic space are projected onto a blended space where this generic structure is filled in with elements from the knowledge domains of the input spaces. The product of the process is called emergent structure, which is realised in three steps: compositions (of the generic structure), completion (with detailed elements from the input spaces) and elaboration (further text-independent development of the blend). Fauconnier and Turner (2002, p.48) describe the last step as 'running the blend', which means that once the blend is completed, readers make further inferences and imagine new scenes based on the blended information. In order to illustrate this mechanism, we will analyse the blending mechanism of the beginning of *A Pursuit Race*.

WILLIAM CAMPBELL had been in a pursuit race with a burlesque show ever since Pittsburgh. In a pursuit race, in bicycle racing, riders start at equal intervals to ride after one another. They ride very fast because the race is usually limited to a short distance and if they slow their riding another rider who maintains his pace will make up the space that separated them equally at the start. As soon as a rider is caught and passed he is out of the race and must get down from his bicycle and leave the track. If none of the riders are caught the winner of the race is the one who has gained the most distance. In most pursuit races, if there are only two riders, one of the riders is caught inside of six miles. (Hemingway, 1987, p.267)

The integration network of the comparison at the beginning of the short story is illustrated in figure 5. In input space 1, we find William Campbell who tries to stay ahead of the burlesque show but gets caught in Kansas City. In input space 2 we find all our knowledge of a classic pursuit race of two bicycle riders. When structural similarities are aligned in the generic space we learn that both input spaces consist of one entity trying to stay ahead of another, that continuously comes closer. Moreover, at the end the other entity caught the first, which means the end of the event. With these similarities, we compose the generic structure. When we project this structure onto the blended space, elements from the input spaces are added to complete the blend. Once the blend is completed, we can imagine how Campbell was probably driving too slow in compared with the steady pace of the burlesque show. Another possibility that comes to mind is that Campbell got tired riding in front of what supposedly is a motor-driven caravan. In this manner, we are elaborating the blend, reasoning from within the completed blended space.

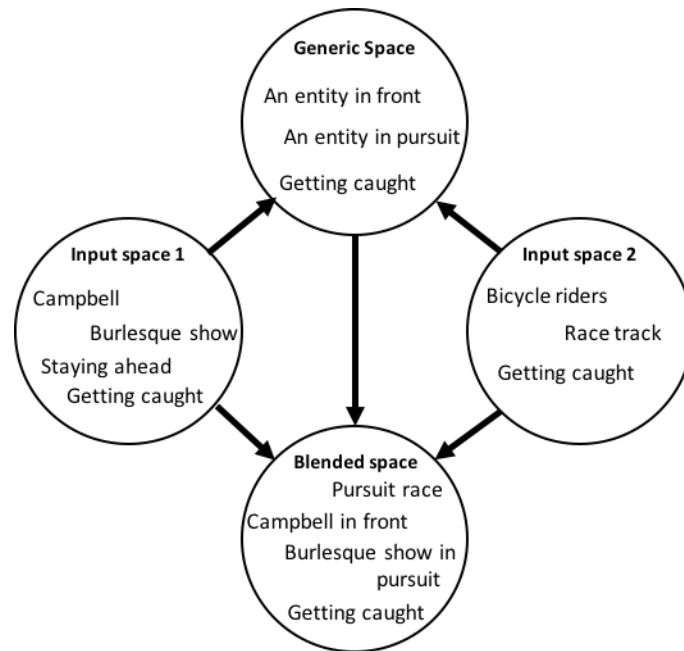


Figure 5: Integration network of the beginning of *A Pursuit Race*

According to Fauconnier and Turner (2002) this mechanism is not restrictive to metaphorical language. This lies at the basis of almost every meaning creation. For instance, when Turner (2002, p.10) mentions that if Aristotle knew about Conceptual Blending he would change his theory, Turner is using a blend. Aristotle and Turner can never be in the same space, if not a blended space, composed with elements from Turner's input space and Aristotle's input space. Only in the blended space can Aristotle adopt Conceptual Blending and possibly compliment Turner on his findings.

Although the mechanism we have explained is valid for all conceptual blends, Fauconnier and Turner (2002, p.113-135) distinguish four types of conceptual integration networks based on the number of input spaces and the type of knowledge frames they contain. First, a Simplex Network is an integration network, where the structure of blended space is entirely provided by the frame knowledge of one input space. For instance, 'Mr. Turner, the manager of the burlesque show' is a Simplex Network, because one input space contains only a burlesque show and Mr. Turner, while the second input space contains frame knowledge of company hierarchy with a manager and an unnamed company to be managed. In the blended space, the latter input space brings the structure, while the former fills in the details. Secondly, a Mirror Network is characterised by input spaces with the same structure. Turner's (2002, p.10) Aristotle-blend is a good example as both input spaces contain the same kind of roles, relations and actions, namely a scholar with theories open for improvements and critique. Thirdly, the conceptual blend at the beginning of *A Pursuit Race* is called a Single-Scope Network. In a Single-Scope Network the input spaces have different structures. Consequently, only one of the two

structures is used to compose the emergent structure. In the race-blend above, input space 1 contains knowledge about an advance-man that needs to stay ahead to make publicity and a burlesque show that travels after. In the other input space, we find a detailed knowledge of a bicycle pursuit race. It is the latter that is projected to structure the blended space in which both Campbell and the burlesque show become riders in a race. The last type of conceptual integration network is the Double-Scope Network. In this kind of integration network, each input space as well as the blended space have a different organising frame. A good illustration of this category is a computer desktop, which combines the organising office frame with the computer organising frame to create something new: a desktop frame.

4.2. Conceptual Blending and the Analysis of Literary Fiction

Conceptual Blending has been primarily applied to the analysis of metaphors and poetry (e.g. Brandt & Brandt, 2005; Crisp, 2008; Freeman, 2002, 2005) but recently Conceptual Blending has received increasing attention of scholars concerned with the analysis of literary fiction as well (Schneider, 2012, p.2). The first comprehensive collection of contributions to the analysis of literary fiction by means of Conceptual Blending was the co-edited book of Schneider and Hartner (2012), namely *Blending and the Study of Narrative: Approaches and Applications*. The collection consists of theoretical broadening of the study of narrative and concrete applications of Conceptual Blending mechanisms to the study of literary texts. In his introduction to the book, Ralf Schneider (2012, p.10-20) gives an overview of what aspects of narrative study can be refined with Fauconnier and Turner's (2002) model of human thought. Conceptual Blending is used in narrative studies to explain (a) relations such as metaphors intertextuality and the mixing of genres, (b) the influence of world knowledge on the reading process and (c) intratextual contradictions. In the following paragraphs, we will provide an overview of these three paths for the study of literary fiction through Conceptual Blending Theory.

First, as we have shown in our analysis of the beginning of *A Pursuit Race*, Conceptual Blending is suited to account for metaphor processing, both at sentence level and discourse level. Consequently, it hardly surprising that many narrative studies use Conceptual Blending Theory to analyse metaphorical relations in literary texts. Harding (2012), for instance, develops a complex network of metaphorical blends in her analysis of Charles Chesnutt's *Dave's Neckliss* (see also Cook, 2012; Freeman, 2005). A similar path of analysis is the study of intertextuality through Conceptual Blending. Intertextuality can be explained as a blend of different texts (e.g. Semino, 2009). Another interesting and related application of Conceptual Blending is in the study of 'genre mixing' which can be seen as a blend with different genres in the input spaces (e.g. Sinding, 2005).

Secondly, when we are reading, we combine our knowledge of the world with the situations created in the text. Schneider (2012, p.12) argues that we can easily understand this process as an integration network (mirror network) containing our world knowledge in the first input space and in the other the specific situations described by the text. Building on this general view of the process of reading, we can use this kind of blend to explain other literary features. For instance, many situations, places, era's, dialogues and characters in literary texts are based on typical stereotypes (e.g. job interview, Victorian era, the hero), for which we have built mental models (Schneider, 2012, p.17). When situations, places, era's, dialogues and characters in literary texts resemble these categories, we construct a mirror network to blend our mental model of these categories with the information provided by the text.

Finally, a literary text often provides different perspectives that are not always entirely reconcilable. Characters, for instance, are often presented in different ways by the narrator, other characters and the character itself. The image of the character in the reader's mind can be defined as an 'inner-fictional blend' (Schneider, 2012, p.16) with all the different perspectives in the input spaces (e.g. Hartner, 2012). Furthermore, literary texts have a strong counterfactual aspect as well: texts constantly create possibilities, from which (mostly) only one is realised. Dannenberg (2008) has studied how the reader conducts this counterfactual reasoning and suggests that the result is a conceptual blend with in the input spaces both the realised course of action described in the text and the unrealised counterfactuals. In other words, the fact that William Campbell is caught in Kansas City by the burlesque show is only meaningful in the text because the counterfactual situation in which he is still ahead, is included in the blend.

4.3. Limitations

Fauconnier and Turner's (2002) model of human thought has had a significant influence in many fields of scientific study beyond literary studies (e.g. cognitive linguistics, cognitive psychology). However, every theory that makes such universal claims is expected to receive some objections (Schneider, 2012, p.7). We will briefly enumerate the most significant comments in the scientific debate.

First of all, Fauconnier and Turner (2002) have never made clear how their broad hypotheses and detailed mechanism can be falsified empirically (Gibbs, 2000, 2001). However, Fauconnier and Turner (2002, p.54-56) admit that we cannot fully access blends either by external observation or introspection. Consequently, it is hard to prove not only the blending mechanism but also its existence. Coulson and Matlock (2001) provide some empirical evidence that is consistent with Conceptual Blending, but does not nearly account for the complex mechanism proposed by Fauconnier and Turner (2002). Similarly, Yang et al. (2013) have conducted an empirical study into

metaphor processing using event-related potentials suggesting a blending mechanism but their findings are not sufficient to prove the complex blending model. Ritchie (2004, p.35) provides a possible neurological basis for Conceptual Blending based on neurobiological findings of Calvin (1996) who found that when two minicolumns of neurons, possibly representing concepts, fire repeatedly in a certain pattern, there is a tendency for a third minicolumn to fire as well. Nevertheless, the relation between both remains to be proven.

Secondly, not only the theory is hardly falsifiable, blending analyses are impossible to disprove as well (Schneider, 2012, p.8). This is mainly because scholars using conceptual blends often start from the blend and then work their way up to the generic space and the input spaces, which is as Fludernik (2010, p.20) argues, 'venturing on the thin ice of speculation'. Many conceptual blends make perfect sense and are difficult to explain without the integration network and the particular input spaces first defined. Moreover, Gibbs (2000) claims that alternative explanation of blends can never disprove the existence of the blend because the latter is not falsifiable as we have already mentioned.

Furthermore, Ritchie (2004, p.38-41) indicates the problematic metaphorical nature of Conceptual Blending Theory. Because the Fauconnier and Turner (2002) use words as *blends*, *spaces* and *networks* to talk about cognitive processes, they are using metaphors as corner stones for their theory. For Fauconnier and Turner (2002, p.40) the neurological and biological basis for these mental spaces are "sets of activated neuronal assemblies and the lines between elements correspond to coactivation-bindings of a certain kind". However, they provide little explanation to ground this thesis (Ritchie, 2004, p.39). Moreover, Ritchie (*ibid.*, p.39-40) claims that the implications of the different metaphorical terms are contradictory. For instance, the space metaphor represented in the illustrations with clear boundaries, implies that elements must be replicated from one space to another instead of patterning existing elements, as is the case with a network. Consequently, Fauconnier and Turner's (2002) network of mental spaces is paradoxical in nature.

Finally, some scholars have argued that blending analyses are often unnecessarily complicated compared with the frequently obvious processes they are explaining (Gibbs, 2000; 2001; Harder, 2003; Hougaard, 2008; Ritchie, 2004; Schneider, 2012; Semino, 2009). Similarly to Text World Theory, if the scope of Conceptual Blending is to merely explain the processes behind reading literary texts without adding extra novel interpretations, then its empirically ungrounded character undermines its value. Since its complex mechanism is not (yet) empirically validated, there is no good reason to sin against Ockham's razor and adopt such a complex theory for mostly self-evident objects of study. Moreover, not only complex blending analyses but even Fauconnier and Turner's (2002) basic examples can be more easily explained by using other and simpler models (see Ritchie, 2004, p.41-45).

Nevertheless, Conceptual Blending theory is a powerful heuristics (Schneider, 2012, p. 10; Semino, 2009, p. 60-65), when used with caution. For the study of metaphorical relations and intertextuality, Conceptual Blending Theory appears to be well-suited. The pitfall, however, is to try and explain every single aspect of literary fiction with it.

5. Analysis of *A Pursuit Race*

In order to illustrate the claims and mechanisms of the three theories introduced in the previous chapters, I will apply them to *A Pursuit Race* (see appendix). This short story was chosen for its *brevitas*, simplicity and metaphorical profoundness. I will analyse the text three times demonstrating the basic tenets of the theories and their consequences for the analysis of literary fiction.

5.1. Schema Analysis

In the first step of the schema analysis, I will indicate a whole range of possible world schemata that the text can activate in a reader, without providing further interpretation. For this, I adopt Cook's (1994) categories of 'scriptlike-schemata' (\$S), plans (II) and themes (Θ). In the second step I will hypothesise how the activation of certain schemata can cause different interpretations of the story. Finally, in analogy with Cook (1994) I will indicate the text schemata (knowledge about text structures) and examine possible discourse deviations in the short story. However, instead of focussing on schema refreshment, I include possible schema reinforcement as well, in accordance with the critique of Semino (1997, 2001). In doing so, the schema theoretic analysis of *A Pursuit Race* clarifies what knowledge is activated by the text, how this knowledge can cause different interpretations and the way in which the short story refreshes or reinforces the reader's existing schemata. Moreover, by focussing on schemata's potential to influence story recall and understanding, the present analysis stays close to the original psychological and empirically grounded notion of schemata.

5.1.1. The Activation of World Knowledge

In table 1, I have enumerated the script-like schemata I could derive from Hemingway's short story in a chronological order. For each script-like schema, its header is given. Moreover, it is indicated whether the schema is fleeting or not. In table 2, I have listed the plans, together with their character and themes that can be found in the literary text. However, it must be stressed that not every reader will activate the same schemata. In experienced readers of Hemingway, for instance, the text could activate a plethora of additional intertextual themes. Conversely, in unexperienced readers the number of schemata in general could be significantly fewer. Altogether, the comprehension of almost every word necessitates schema activation and consequently if I were to indicate every fleeting schema in the text, the list would be enormous and not particularly useful. Therefore, I have chosen to indicate schemata that are in my opinion the most relevant for the interpretation of the text. The goal of this analysis is not to give an overview of every possibility, but to show how schemata can be explanatory for interpretations.

World Schemata	Header	Fleeting
\$\$ pursuit race	"pursuit race"	No
\$\$ burlesque show	"burlesque show"	No
\$\$ Pittsburgh	"Pittsburgh"	Yes
\$\$ Kansas City	"Kansas City"	No
\$\$ advance man	"advance man"	No
\$\$ lying in bed	"he was in bed"	No
\$\$ sickness	"he was in bed"	Yes
\$\$ cold weather	"It was very cold"	Yes
\$\$ alcohol	"he reached under the bed for a bottle"	No
\$\$ stomach	"It made his stomach feel better"	Yes
\$\$ to refuse a drink	"had refused a drink"	Yes
\$\$ being drunk	"you're drunk"	No
\$\$ getting down of the bicycle	"I've got down off my bicycle"	No
\$\$ to fire someone	"You can't fire me"	No
\$\$ lying under sheets	"completely covered by the bed-clothes"	No
\$\$ manager	"the manager of the burlesque show"	No
\$\$ kissing	"feeling the texture with his lips"	No
\$\$ being a fool	"You're a drunken fool"	Yes
\$\$ rehab	"take a cure"	No
\$\$ wolf	"I've got my wolf back"	No
\$\$ heroin	"There were small blue circles around tiny dark punctures"	Yes
\$\$ London	"London"	Yes
\$\$ to know drug addicts	"living in daily association with people who used drugs"	No
\$\$ circus act	"You're called Sliding Billy"	No
\$\$ women	"keep away from women"	No
\$\$ horses	"keep away from women and horses"	No
\$\$ eagles	"eagles"	No
\$\$ to wake someone	"he did not wake him"	Yes

Table 1: List of the fleeting and non-fleeting world schemata and their headers possibly activated during the reading A

Pursuit Race

Plans	Themes
Π staying ahead of the burlesque show (Campbell)	⊖ doing one's job
Π getting paid (Campbell)	⊖ being a manager
Π get employee to work (Turner)	⊖ being drunk
Π help Campbell (Turner)	⊖ being addicted
Π stay in bed (Campbell)	⊖ being a caring manager/person
Π run away from life (Campbell)	⊖ life is a pursuit race
	⊖ when life catches up
	⊖ hiding
	⊖ love-sickness
	⊖ love as a destroying force
	⊖ being in a jam
	⊖ life is shit
	⊖ no cure for misery
	⊖ homosexual self-hatred

Table 2: List of plans and themes possibly activated during the reading *A Pursuit Race*

5.1.2. Three Readings

Now that I have indicated the schematised world knowledge that the short story can activate in readers, it remains to show in which way these schemata can create and favour varying interpretations. In the following paragraphs, I provide three possible readings of Hemingway's short story. These readings are compatible but vary in focus due to the dominance of different schemata in the reader. The three interpretations that will be explained respectively are the following: a) the devastation of addictions, b) life as a pursuit race and c) homosexual self-hatred.

a) The devastations of addictions

If the reader pays little attention to the initial metaphor, interpreting it as a nice comparison between the job of an advance man and a pursuit race without further considerations, the first meaningful event is the fact that William Campbell was unable to do his job. In other words, Campbell's plan to stay ahead is not fulfilled. Instead, Campbell is lying in bed. This piece of information triggered the '\$S being sick', with the expectation that Campbell was indeed sick. However, a few sentences later we find out that Campbell is not sick but drunk and drugged (\$S being drunk, \$S being drugged). In my case, the fact that the sickness-schema was activated before the intoxicated-schema, caused a compassionated feeling towards Campbell instead of a condemning reaction, since he was already framed as sick. Of course, some readers might not have thought of sickness, and consequently their

reactions to Campbell's real state might be more negative. Conversely, readers living the life of Campbell might sympathise with Campbell's situation. Nevertheless, the reader quickly establishes that Campbell is intoxicated and consequently unable to conduct a decent and cohesive conversation. Mr. Turner's actions and behaviour activate the theme of a caring manager (⊕ being a caring manager/person) who is concerned with the well-being of his employees. Mr. Turner's goal is quickly identified by the reader as helping his advance man get better (⊖ Campbell get better). Indeed, Mr. Turner is patient and frequently talks about rehab, activating the \$S 'rehab'. However, Campbell keeps turning his manager down and eventually Mr. Turner leaves the room because the conversation is pointless. Campbell's intoxicated state not only makes him hallucinate (e.g. the wolf), but also renders the conversation at times absurd and meaningless, which all elaborated the intoxication-theme. The repeated activation of \$S 'sheets' and \$S 'kissing' emphasises the absurdity of the situation and Campbell's state of being. A reader who focusses on these themes, sees his or her expectations confirmed more than once. Campbell's addiction impedes him from picking up his life (⊕ being in a jam) and acting like a normal human being (\$S being a fool). On the one hand, Campbell's unexplainable affection for the sheets causes the reader to recall his intoxicated state and how this state impedes any attempt of human conversation. On the other hand, although Mr. Turner eventually leaves the room, he comes back at noon finding his employer deep asleep. The fact that Mr. Turner comes back to check on him confirms the reader's interpretation of Mr. Turner as a caring manager, almost as a father-figure. However, following the reader's interpretative path, Campbell is still intoxicated at the end and consequently, Campbell sure seems to be a hopeless addict. For these readers the story functions as an emblem of yet another man ruining his life with drugs and alcohol, while his friends and family stand by unable to do anything than letting him sleep. Admitted, this is a rather plain interpretation that comes rather close to mere comprehension. Nevertheless, this might be the only general meaning certain readers extract from the short story.

b) Life as a pursuit race

The second reading does not exclude the first, but it rather adds an extra layer of meaning to the story. Contrary to the first reading, readers that follow this path have paid more attention to the initial metaphor, emphasised by the title as well. Not only has Campbell been in a pursuit race with a burlesque show ever since Pittsburgh, he has been in a pursuit race with his life ever since his birth. For these readers, the initial metaphor activates the specific theme of life as a pursuit race. In this instance, not only the burlesque show but life itself has caught up with Campbell in Kansas City with all the disastrous consequences. Readers that have recognised this theme will look at Campbell's intoxicated state in a slightly different manner (e.g. Fontana, 1984). William Campbell has been

running from alcohol and drugs for a long time, but the pursuers have finally caught up with him and are eventually destroying him. The race is over, he lost (\$S getting down off the bicycle). When this interpretation is broadened, the story tells the tale of every one of us as a bicycle rider in a pursuit race. Some stay ahead until their death, some lose. Campbell represents the losers who are caught by their vices (⊖ being in a jam). Related to this interpretation, is the activation of the hiding-theme. Indeed, Campbell hides under the sheets of his bed (\$S lying under sheets). This also explains his obsession with it. It is the only thing that stands between his own failure and his manager to which he is accountable. For these readers, the relation between Campbell and the sheets is more than merely an example of his intoxicated state. It resembles a destroyed man (⊖ being in a jam) aching to find cover and protection (⊖ hiding). When focussing on these themes initiated by the metaphor in the beginning, readers can interpret Campbell's intoxication not (only) as the story of a poor drunk (\$S being a fool, \$S being drunk), but as the story of everyone that has failed in life and prefers to hide and stop trying (⊖ life is a pursuit race).

c) Homosexual self-hatred

Finally, the last reading of Hemingway's *A Pursuit Race* adds a sexual layer of meaning. For some experienced readers or literary scholars, the wolf from Campbell's hallucination (\$S wolf) refers to a homosexual lover (Fontana, 1984, p.44). According to Fontana (1984, p.44) linguistic research of prison slang in the Kansas City area in the period that Hemingway lived there, reveals that wolf indeed referred to homosexual intercourse. Readers and literary scholars who are aware of this fact are from then on steered by the homosexual-love-theme. In this case, this homosexual love is something of which Campbell himself is ashamed. Because although 'the wolf is lovely', Campbell drinks to get the wolf out of the room. Moreover, when Campbell states that the wolf is lovely 'just like he always was', it relates to the initial metaphor. The reader asks himself/herself whether Campbell is not only running away from drugs and alcohol (⊖ life as a pursuit race) but also from his homosexual tendencies which are delightful but shameful. Consequently, it is not only the burlesque show that has caught up with him in Kansas City, but also his homosexual lover. In this network of themes, the hiding-theme again becomes relevant, because Campbell hides his shame childishly under his bed sheets (⊖ hiding). In addition, as Campbell repeatedly claims that the sheets are nice and how it loves him, the reader could interpret the sheet as a replaced lover (⊖ love-sickness). Since homosexual love is eventually shameful and thereby painful, the sheets provide the intoxicated Campbell with a safe and soft alternative. In this light, Campbell's mysterious and absurd expression at the end about women, eagles, horses and their shit can be interpreted as another expression of the destroying nature of love (⊖ love as a destroying force). In this way, through the emphasised activation of the wolf as homosexual lover, the

story becomes a treaty of homosexual self-hatred, which is a known feature of the author (Fontana, 1984, p.45). As a consequence, in Hemingway experts the life of the author might be activated as an additional schema, framing the overall interpretation.

5.1.3. Schema Refreshment and Schema Reinforcement

Following Cook's (1994) theory of discourse deviation and Semino's (1997, 2001) addition of schema-reinforcing, literary fiction could lead respectively to the refreshment or reinforcement of our world schemata. This is caused by deviation at the language or text level, which is then transferred onto the world level. In other words, apart from deviations in world schemata, deviating language or text structures can alter our world knowledge as well. Concerning the language schemata of *A Pursuit Race*, no significant deviations can be found. In other words, the prose language of the short story does not significantly deviate from what can be expected. Furthermore, the text schemata connected with the short story, namely \$\$ 'short story' and \$\$ 'literary fiction', are never challenged throughout the text. Structurally the text can be seen as schema-reinforcing. However, we could distinguish another text schema, namely \$\$ 'conversation between employer and employee'. This schema lingers on the boundary between world schema and text schema but does prescribe certain rules and generates clear formal expectations of such an event. Our expectations with regard to this text schema are not met, but significantly broken. The discourse does not only lack any form of respect from the employee towards his superior, the discourse lacks cohesion. Moreover, William Campbell sins against the principle of co-operativeness (see Grice, 1975; Werth, 1999, p.49). Our schema of a regular conversation between a boss and his employee is disturbed and consequently schema-refreshment might take place. However, it is also possible that readers have schema-based knowledge of difficult conversations or that the reader builds on a \$\$ 'conversation with a drunk' instead of \$\$ 'conversation between employer and employee'. If we assume that the reader indeed experiences discourse deviation on the text level, some deviations regarding the world level might cause schema-refreshment as well. Depending on the expectations of the reader, the caring-manager-theme, emphasised through the difficult conversation might be surprising. Nevertheless, the reading of the story as the tale of a hopeless and self-destructive addict (reading a) can hardly be schema-refreshing, as it is a story we have heard and seen a dozen times. Conversely, readers adopting one of the other two proposed readings can experience schema-refreshment. The narrator's view on life as a pursuit race is not a well-known metaphor and might refresh the reader's schema of life. Similarly, the theme of homosexual self-hatred, activated by the schema-refreshment of the highlighted (and non-fleeting) 'wolf-schema', might be new as well for Hemingway-initiates, but can certainly be schema-reinforcing for Hemingway-experts.

5.1.4. Conclusive Remarks

What is the conclusion of this schema analysis of *A Pursuit Race*? Schema Theory has enabled me to indicate what and what kind of knowledge might be activated while reading the story. Then, building on this knowledge, the analysis was able to show how different readers, with different background knowledge and focussing on other elements of the story, developed different readings with varying interpretations. An unexperienced reader, paying little attention to the initial metaphor, is steered to interpret the text as a story of the devastating consequences of a drug-addiction, while more attentive readers will read more in the initial metaphor. This kind of reader learns how life is a pursuit race and what happens if we are caught and lose. Finally, literary scholars studying Hemingway as an author or examining the strangest element in the story, namely the wolf, can interpret the short story as Hemingway's expression of his own homosexual self-hatred. A schema analysis does not aim to defend one reading or the other, nor to pretend to know what the proper reading of the text is. Schema analyses simply acknowledge this fact and explain how different readers might develop different interpretations due to varying former knowledge. Moreover, building on Cook (1994) and Semino (1997), I was able to suggest in what way and in which readers the literary text might evoke schema-refreshment or schema-reinforcement. However, what a schema analysis tends to neglect is the literary text structure. Literary texts sometimes use narratological devices such as metalepsis, flash-backs and flash-forwards and focalising. In addition, literary texts often display contradicting character beliefs which results in a particular, literary experience. Schema Theory lacks the tools to analyse these literary aspects for which another method is required.

5.2. Text World Analysis

The scope of my text world analysis is to show the way in which Text World Theory can give interesting insights into discourse processing by structuring the reader's mental representations. Since Text World Theory provides an enormously nuanced and complex framework for analysis, I will not analyse the entire text to the smallest detail for practical reasons. Instead I will highlight the most remarkable elements of the text and show how Text World Theory can explain their effects on the reader.

5.2.1. Text World Structure

Figure 6 below, illustrates the general text world structure of *A Pursuit Race*. Because the discourse participants (author and reader) are separated in time and place, the short story is an example of a split discourse (Gavins, 2007, p.129). In this case, the first world the reader creates is a text world in which a fictitious discourse world with both author (or narrator) and reader himself/herself is

represented. As the narrator starts telling the reader witnesses a world-switch into the past tense world of William Campbell and the burlesque show. In the text world, the reader imagines how Mr. Turner entered and left the room and how Campbell reached for the bottle immediately afterwards. From this text world, a new text world is created through a deictic shift, namely a flash-back. After Mr. Turner has left, the narrator recalls the conversation between Campbell and the manager, which is described and re-enacted in detail. Finally, at the end a flash-forward takes place and the reader's mind is guided to a moment in time after Mr. Turner had left. In this final text world, the reader learns how Mr. Turner returns at noon and finds Campbell sleeping. In addition to these text worlds and world-switches, the reader encounters four blended worlds as well, representing the metaphorical relations between (a) life and a pursuit race, (b) the wolf and homosexual love and the sheets as a (c) hiding place or (d) a safe surrogate lover.

What does this text world analysis tell us about Hemingway's short story? First of all, the structure in figure 6, show that the storyline does not follow a straight line. The conversation between both characters is the central part of the story and the main argument. However, this central part of the text is concealed in the text world of the narrator as if it did not take place at all. The narrator mentions Mr. Turner entering and almost immediately leaving as if what happened in between is irrelevant. On the contrary, what happened in between, forms the main body of the short story, something that the reader only learns after the flash-back to the conversation between the two men. In doing so, the text focusses on this part of the story. The text first provides the general sequence of the scene so the reader can understand what happens. Then, however, the text unexpectedly zooms in on the conversation in order to highlight its relevance.

Secondly, the various blended worlds that are constructed by the discursive metaphors in the text are extra layers of meaning from which the reader can draw. These blended worlds are created incrementally as the reading progresses building on the micro-metaphors provided by the main text worlds but form a parallel source of elements that can enrich the processing of the main text worlds. The notion and mechanism of these blended worlds help us understand how metaphorical relations throughout a text might be processed.

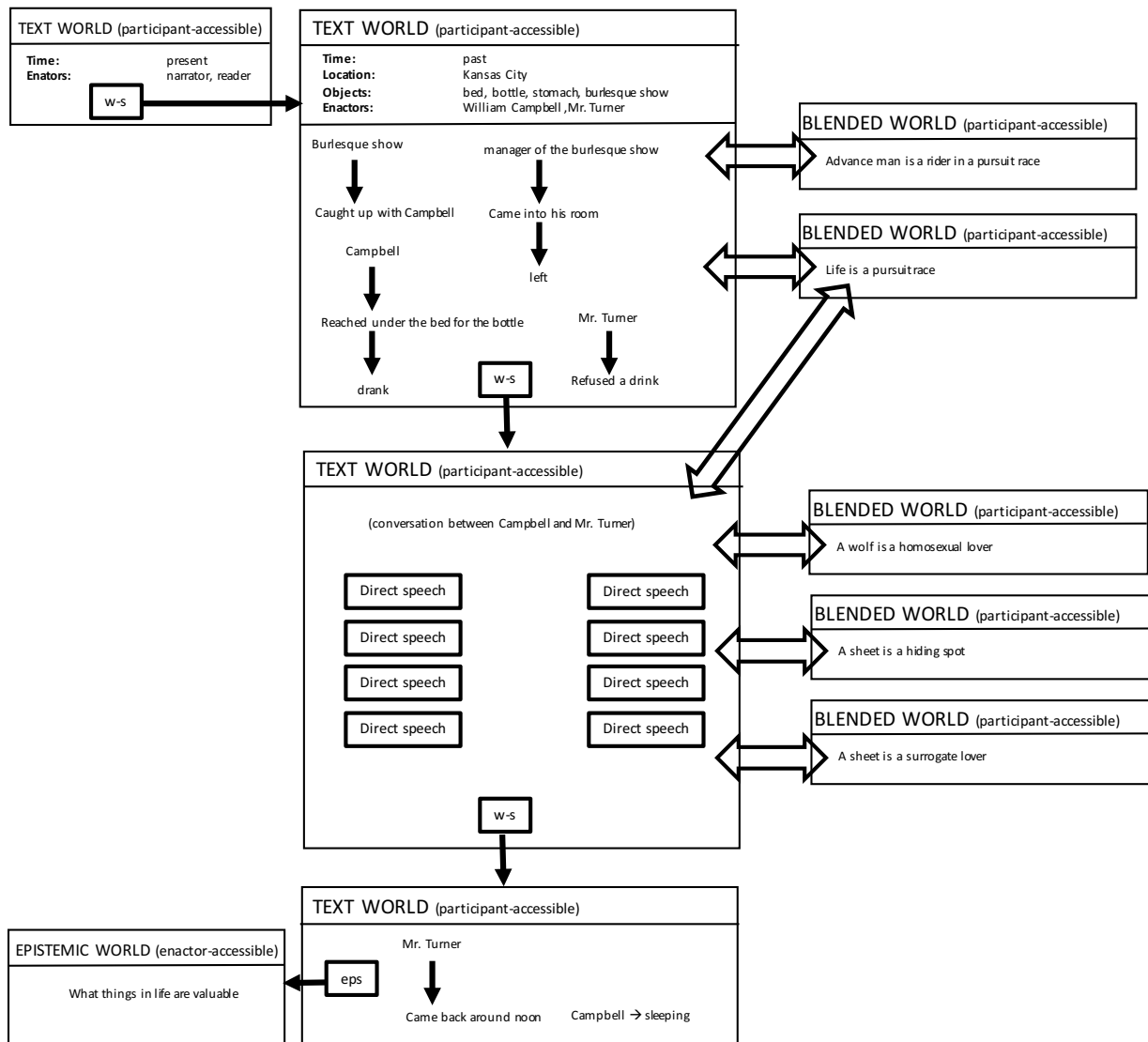


Figure 6: Simplified text world structure of *A Pursuit Race*

Furthermore, although the central part of the story, namely the conversation between the two men, is the longest part of the text, its representational text world is rather small. The reader experiences the absence of the narrator, who certainly guides the plot but does not add information. Instead all the information is provided by the characters in epistemic worlds of direct speech and belief (or wish) worlds. Consequently, the mental representations of the largest part of the text is not given by the trustworthy narrator but by the characters, of which one is certainly drunk and therefore unreliable. The epistemic worlds and belief worlds of the characters are enactor-accessible worlds, which means that the reader is not able to verify its correctness directly. This results in a rather distant perception of the occasionally absurd conversation. It is due to this distance however that the realism of the story is achieved. The conversation is staged as the interaction of different and sometimes contradictory modal worlds without intervention of an all-knowing narrator. The reader witnesses a seemingly pure dialogue between a drunk employer and his manager, but the fact that Campbell is

drunk is not given by the narrator but inferred by the reader. Since the text provides contradicting information about whether Campbell is drunk and the narrator does not provide the solution, the reader must find the truth himself/herself. The claims about the matter are all represented in belief and epistemic worlds created by the characters (see figure 7). Based on this information only, there is no real way for the reader to know who is right. However, since Campbell frequently sins against the principles of discourse (Grice, 1975; Werth, 1999, p.49), his reliability is deemed less and the reader has the tendency to believe Mr. Turner. In conclusion, although the reader is not given any certainties by the text regarding the drunken state of Campbell, the text steers him/her in the right direction through the use of direct speech and the re-enacted difficulties of Campbell to conduct a normal conversation.

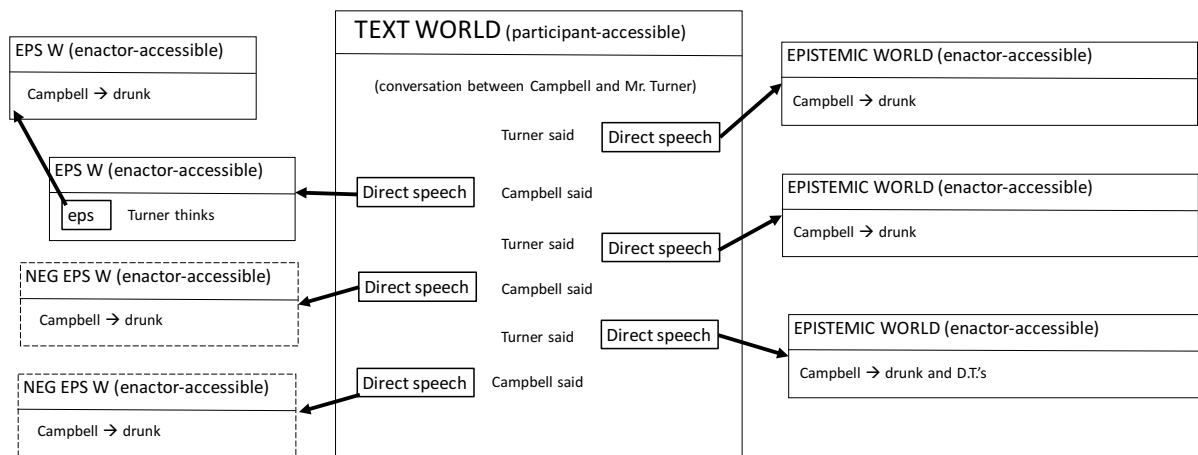


Figure 7: text world structure of a contradicting passage of the conversation between Campbell and Mr. Turner

Finally, participation-worlds enable text world analyses to follow and feature online reading responses. The notion of participation-worlds might clarify how the text world structure can influence processing. For this purpose, I have tracked my own responses while reading the short story. This has revealed some interesting features. For instance, as I already clarified in chapter 3.2, the apparent shortness of the visit of Mr. Turner creates and confirms the expectation that Mr. Turner as a manager is angry with his employee. This expectation is retained in the flash-back of the conversation and reconfirmed by Campbell's immediate reaction: 'You can't fire me'. It is not until Mr. Turner offers to help, that our expectations are altered. In other words, the shortness of the first text world does not only cause an initial feeling of irrelevance of the encounter, but also suggests that Mr. Turner is indeed angry with Campbell, something that I as a reader had wrongly inferred. Other instances where participation-worlds are a relevant heuristic tool are the passages where Campbell sins against the discourse principles because he contradicts himself or provides irrelevant answers. Participation-

worlds allows the analyst to go beyond the text structure alone and include the reactions of the reader to such inconsistencies giving a clearer view of discourse processing.

5.2.2. Conclusive Remarks

A text world analysis of *A Pursuit Race* has shown that the short story results in a complex processing because the main part of the story is presented in an unexpected flash-back in which all the frequently contradicting information is provided in enactor-accessible epistemic and belief worlds, while the reader is constantly toggling between the main text world and the four blended worlds. Moreover, the notion of participation-worlds enables the analyst to feature online reader responses to these aspects. As I have demonstrated, Text World Theory is particularly well-suited to show how text structure influences online text processing. The relations between text world, world-switches and modal worlds have a clear influence on the way in which readers experience a text (as was shown by means of participation-worlds). However, Text World Theory seems to assume that everything is always processed ignoring the possible top-down effects of expectations and activated knowledge. Consequently, although a text world analysis clarifies the possible online processing of literary texts, it fails to take into account some of these basic established cognitive processes.

5.3. Blending Analysis

The last of the three analysis is conducted according to Conceptual Blending Theory. The scope of this analysis is to show how integration networks can explain the creation of nuanced and rich meanings. In other words, the analysis aims to clarify how the reader constantly combines different thoughts and knowledge to create his or her own version of the text in which all these thoughts have created a dynamic whole. For this purpose, I will indicate where and in which way integration networks are revealing.

5.3.1. Integration Networks

Since Conceptual Blending was originally a theory of metaphor processing, it seems best to start analysing the global metaphorical relations in the text. First of all, the metaphor at the beginning can be interpreted in different ways as we have already shown in 4.1.2., namely BEING AN ADVANCE MAN IS A PURSUIT RACE, LIFE IS A PURSUIT RACE, and BEING HOMOSEXUAL IS A PURSUIT RACE. In the reader, these three interpretations are blended together through the integration network displayed in figure 8. In this instance, the integration network counts four different input spaces. We have here a single scope network, because input space 2 with the pursuit race (and input space 1 with Campbell's work as an

advance man) gives the generic structure for the blended space. The complex blend at the end includes the parallels between Campbell's job and the pursuit race, but also the similarities between a pursuit race and life, insomuch that when the reader learns that Campbell is caught by the burlesque show, the blend is run: Campbell has lost the race and consequently has lost in life. Moreover, the input space of homosexual love adds the interpretations that Campbell is caught by and lost in his homosexual desires. Consecutively, the reader elaborates this blend further as the text progresses.



Figure 8: Integration network of the metaphorical relations in *A Pursuit Race*

Secondly, the second metaphorical relation that can be clarified with Conceptual Blending is the blended relation between the wolf, intoxication, homosexual love and the sheets as both a hiding spot and a surrogate lover. The integration network of this blend counts five input spaces. The wolf can be seen as a real wolf or as an expression of his intoxication. Moreover, as we have seen, wolf can be slang for homosexual lover. So, when Campbell mentions that he has his wolf back, he is both hallucinating and referring to his homosexual tendencies. However, since giving in to his homosexual tendencies equals having lost the race - here the integration networks of both blends influence each other - Campbell feels the shame and needs to hide. The sheet resembles a safe haven, both because

it covers him as sheets do and because it functions as a soft surrogate lover. This complex blend shows how all these meaningful elements are combined in a rich and imaginative whole with a series of important inferences as a consequence.

In addition, the creation of the characters can be explained as the result of conceptual blends as well. William Campbell is first an eager advance man, then though sick, and an addict, a loser in life, a victim of love-sickness, a self-hating homosexual. All these elements remain active in the reader's mind and construct the complex personality of Campbell. The same can be said of Mr. Turner, who is an angry and rightful manager but also a loving and caring person.

5.3.2. Conclusive Remarks

Conceptual Blending seems to provide an adequate model for describing complex meaning construction. It enables the analyst to form and explain nuanced and multifaceted interpretations. Not only are metaphorical meanings modelled in detail but also more particular concepts are dissected to its parts. A blending analysis elegantly shows how, for instance, characters are the sum of many different aspects both mentioned by the text itself or inferred from dialogues and actions. Moreover, the model show how these blends, once constructed are then elaborated by the reader without the need of explicit textual cues. Nevertheless, similarly to Text World Theory, Conceptual Blending does not include the top-down impact of expectations and activated knowledge. Consequently, every detail is considered to be processed independently from what was read first. The reader in a blending analysis is a theoretical construct that sees and processing everything to the same degree, rather than a human being who is led by biases.

6. Assessing the Cognitive Grounds

Before we take a closer look at and compare the three theories in chapter 7, a critical analysis of their cognitive claims is needed. The cognitive turn in literary studies has inclined many scholars to develop cognitive theories of literature to which some scholars often refer as old wine in new cognitive bottles (see Jackson, 2005, p.528; Weber, 2004, p.518-519). Because Schema Theory as well as Text World Theory and Conceptual blending are repeatedly presented as cognitive theories, we need to discuss the nature of their cognitive claims. In other words, to what extent do the three theories claim to be cognitive and on which cognitive notions do they build? Moreover, since these cognitive theories make empirical claims about the way in which we read texts, their empirical grounds must be examined as well in order to establish their validity.

First, Bartlett's Schema Theory (1932) is a psychological theory of perception and memory which has made clear cognitive claims that have provided decades of scholars in different fields with interesting insights. Schank and Abelson (1977) have then elaborated Schema Theory into a complex and hierarchical modal of text processing. Their AI approach rests on the constructivist principle (van Dijk & Kintsch, 1983, p.5), which states that utterances in a natural language or events are translated into mental representations which are constructed in another non-natural language. Studies have indeed supported the idea that textual meaning is stored independently from the linguistic form in which it was uttered (e.g. Johnson-Laird & Stevenson, 1970; Sachs, 1967). However, the propositional, formal and text-based approach of van Dijk and Kintsch (1983) has received some criticism from the theory of mental models, which states that meaning is spatially embodied and dependent of the context (see Johnson-Laird, 1980, 1983, 1995). Consequently, the cognitive claims of Schank and Abelson (1977) were thoroughly contested from its very beginning. Moreover, Cook's (1994) schema based approach to literature builds on simplified versions of Bartlett (1932) as well Schank and Abelson (1977) and Schank (1982). In his theory of Discourse Deviation, Cook (1994) seems to shape the cognitive claims of the aforementioned works in order to render them suited for his approach to literariness which is based on the Russian Formalist notion of defamiliarisation. Consequently, Cook's (1994) model strays considerably far away from the original cognitive theories and has therefore a questionable cognitive grounds. I must admit, however, that Cook (1994) himself never explicitly pretends to put forward a cognitive theory.

With regard to the empirical grounds of the schema theories of Bartlett (1932), Schank and Abelson (1977), Schank (1982) and Cook (1994), only the first one has been clearly supported by empirical evidence (e.g. Bransford & Johnson, 1972; Brewer & Treyens, 1981; Sulin & Dooling, 1974; Tuckley & Brewer, 2003). On the other hand, neither the detailed distinction between scripts, plans,

goals and themes, nor Schank's (1982a) notion of MOP's have been thoroughly empirically supported. Similarly, Cook (1994) does not provide an empirical basis for theory of Discourse Deviation. Therefore, these elaborate, nuanced and insightful theories might as well claim to be cognitive (apart from Cook, 1994), their empirical grounds are questionable.

In my own version of Schema Theory, as applied to *A Pursuit Race*, I have tried to avoid the pitfalls mentioned above by staying as close as possible to the evidence-based cognitive tenets of cognitive psychology, namely schemata. However, by building on Cook (1994), I too have adopted concepts which were never proven to be cognitively sound, such as plans and themes. Nevertheless, these concepts provide a practical tool to describe what happens when reading a literary text. Leaving behind the entire legacy of the AI approach to Schema Theory, would be understating the historical importance and intrinsic value of the theory. When striving for an established cognitive model, we must beware of condemning everything that has no empirical basis. Nevertheless, we must always keep the validity of our claims in mind and try to improve our tools. For that purpose, schema analyses in the future could, for instance, include reader-response analyses to build on a broader overview of possible readings and to check the reading processes they put forward.

Secondly, Paul Werth (1999) explicitly claims that Text World Theory is a cognitive model of discourse processing and therefore implicates that his theory gives insight into human cognition. For this purpose, Werth (1999) mainly builds on cognitive linguistics, in particular on cognitive grammar (Langacker, 1987, 1991, 1999, 2008). Moreover, as I have explained in chapter 3.1, another important inspiration and preliminary theory for Werth (1999) was Johnson-Laird's (1980, 1983, 1995) cognitive psychological theory of mental models, which has been widely accepted within the field of cognitive psychology. Apart from these cognitive theoretic grounds, Werth (1999) clearly built on the possible-worlds theory of Ryan (1991), which consists of possibly equally rich fictional worlds as the actual world (see also Eco, 1989). Possible-worlds theory, however, is not a cognitive theory and originates in formal logic. Another non-cognitive influence is Gavins' (2007, ch. 3-4) adoption of Halliday's (1994) Systemic Functional Linguistics. Obviously, the use of non-cognitive theories does not necessarily compromise the cognitive claims of Text World Theory. However, the text worlds put forward by Werth (1999) and Gavins (2007) together with the detailed typology of sub-worlds, attitudes, accessibility, world-switches are both in complexity and detail far beyond the cognitively established theory of Johnson-Laird (1983). Similarly, Gavins' (2007) adoption of Systemic Functional Linguistics introduces a series of concepts and processes into Text World Theory which lie significantly far from the central tenets of cognitive linguistics. Consequently, on these grounds the cognitive validity of Text World Theory can be doubted.

Moreover, apart from mental model theory which is supported by a large body of empirical studies (Johnson-Laird, 1980, 1983, 1993), both the theories on which Text World Theory is based as Text World Theory itself lack empirical evidence. Although cognitive linguistics have provided significant insights in language processing, the majority of the claims and theories are based on intuition of the scholar conducting the study (Gibbs, 2007, p.3). Gibbs (2007, *throughout*) argues that cognitive linguistics still lacks (direct or indirect) empirical validation of its main tenets. Moreover, apart from Kövecses (2002), the field hitherto fails to even conduct a discussion and reflection on its methods altogether (Gibbs, 2007, p.6). In addition, possible-worlds theory and Systemic Functional Linguistics do not make cognitive claims and were consequently never empirically validated either. Considering the fact that Text World Theory has strayed far from the original cognitively and empirically established concept of mental models without providing empirical grounds for its complex and explicitly cognitive claims, the cognitive value of Text World Theory is questionable.

Consequently, even though Text World Theory has provided interesting insights in many aspects of literary fiction (e.g. Gavins, 2001; Hidalgo Downing, 2000b; Whiteley, 2010), it can hardly claim to be a grounded cognitive model of discourse processing, because its cognitive basis is limited and mostly speculative in nature. Furthermore, if an explanatory and 'impossibly complex' (Semino, 2009, p.59) model of discourse processing is unable to guarantee a certain degree of validity, the law of parsimony should prevent us from adopting the model in the first place. If Text World Theory is to be a cognitive model, future research should examine the central tenets of Werth's (1999) theory empirically. On the other hand, if Text World Theory achieves to provide new interesting insights in text structure without the need to claim cognitive aspirations, it has little need to prove its cognitive grounds.

Conceptual Blending Theory is largely based on several domain-mapping theories of metaphor processing. Although none of these theories were originally conceived as cognitive theories, studies have provided abundant empirical evidence supporting both the structure-mapping theory (Gentner & Clement 1988; Shen 1992; Tourangeau & Rips 1991) and Conceptual Metaphor Theory (Gibbs et al., 1997; Nayak & Gibbs, 1990; Thibodeau & Turgin, 2008). Consequently, the mechanisms that underlie Conceptual Blending are empirically grounded. However, as is the case with Text World Theory, Conceptual Blending has been adopted to account for not only metaphor processing but also a broad variety of aspects of literary texts such as character construction, counterfactual reasoning and flashbacks. However, since the mechanisms established in the domain-mapping theories are particularly developed for (basic) metaphor processing, we have no certainty that this process of human thought indeed takes place in these other instances. Similarly, Fauconnier and Turner's (2002) distinction

between simplex, mirror, single-scope and double-scope networks is pure speculation. Even if we look at Fauconnier's (1985, 1994, 1997) earlier work on mental spaces, which can be regarded as the inspiration for the different spaces, we find considerably little empirical evidence.

So, just as is the case with Text World Theory, Conceptual Blending is a cognitive theory with clear claims on basic human processing based on established processes of meaning generation, but its vast elaboration of the basic principles has never been validated.

Apart from these critical comments on the cognitive and empirical validity the claims of all three theories, another series of profound objections come from the corner of *enactivism*. Schema Theory as well as Text World Theory and Conceptual Blending all suggest that comprehension processes are based on abstract previous knowledge and rich mental representations of what is stated. Even though this approach to comprehension has achieved considerable insights (Shapiro, 2014, p.214), its basic assumptions about cognition are being questioned and even refuted by a 'second generation cognitive scientists' that started with the flagship monograph of Varela, Thompson and Rosch's (1991) *The Embodied Mind*. The main critique of enactivism is that connectionist theories such as the three discussed in this dissertation conceive the mind as an objective mirror of the outside world (Torrance, 2005, p.365). Varela et al. (1991, p.9) argue that 'cognition is not the representation of a pre-given world by a pre-given mind but is rather the enactment of a world and a mind on the basis of a history of the variety of actions that a being in the world performs'. In other words, human cognition is thoroughly embodied and experiential, which means that we do not merely 'see' and 'recall' the world. Instead our senses interact with it resulting in embodied experiences and memories. Hutto and Myin (2013, p.11) even claim that minds lack any content at all and are constituted by 'concrete patterns of environmental situated organismic activity' (for a similar theory of perception see O'Regan & Noë, 2001). Even though this is a rather radical view on cognition, the general relevance of embodiment for basic human processes such as language comprehension and perception is supported by a large body of empirical evidence coming from the field of cognitive linguistics (e.g. Bergen, 2012; Gibbs, 2006; 2013; Gibbs et al., 2006; Matlock et al., 2011; Santana & de Vaga, 2011) and the increasing strand of research into mirror neurons (e.g. Gallese, 2003, 2009; Iacoboni, 2009; Preston & de Waal, 2002). Altogether, enactivism aims to promote the notion of experience in cognitive sciences (Torrance, 2005, p.365). Although it is not the purpose of this dissertation to give a detailed account of the enactivist-approach (E-approach; Hutto, 2012; see also Caracciolo, 2014, p.6), a few comments must be made on the way in which Schema Theory, Text World Theory and Conceptual Blending have hitherto failed to meet the challenges raised by this considerable influential shift in cognitive sciences.

First, Schema Theory is essentially a connectionist model of memory and perception, because both its version in cognitive psychology as in assumes that comprehension necessitates the activation of abstract former knowledge. In Schank and Abelson (1977) this abstract knowledge is not even encoded in natural language but in a propositional language much like programming language (Conceptual Dependency Theory; see Schank, 1975). Consequently, schemata in AI can hardly be embodied because their content as well as their form is uncoupled from the lived human experience. On the other hand, Bartlett (1932) and contemporary cognitive psychologists (e.g. Ghosh & Gilboa, 2014) claim that schemata are packages of abstracted knowledge of events, things and persons based on different experienced episodes. Although they fail to include any notion of embodiment, this approach does not necessarily exclude it. Nevertheless, schema based approaches have hitherto failed to include the embodied nature of experiences into their conception of schemata. Similarly both the adoption of Cook (1994) and Semino (1995) seem to have missed the enactivist claims made four years before their publications. Although Semino (1995, p.149) does indicate that some scholars have challenged the lack of an affective component in Schema Theory (e.g. Spiro, 1982, Ortony & Turner, 1990), Semino herself does not meet this challenge.

Secondly, Text World Theory explicitly claims to be an experiential and embodied model of discourse processing (Gavins, 2007, p.9; Werth, 1999, p.9). However, Whiteley (2010, p.30) argues that Werth (1999) as well as Gavins (2007) and other text world theorists have hitherto failed to develop and apply this embodied and experiential character of text worlds. Moreover, if we read more closely we find that the text world theoretical notion of embodiment and experientiality is considerably different from the one in enactivism. Indeed, Gavins (2001, p.48), Werth (1999, p.37) and even Whiteley (2010, p.21) all emphasise that the rich mental representations of texts that are multisensory are essential for the experiential aspect of discourse processing. This idea goes back to Possible-Worlds Theory (Ryan,1998, p.143) that claims that the text-as-world metaphor is able to account for the experiential and emotional nature of literary reading through immersion. Text World Theory sees experience mainly as a process of recognising novel and familiar situations based on former knowledge. Gavins (2007, p.22), for instance, speaks of experiential knowledge instead of experience, thereby stressing its abstract and rational component. Clearly, these claims are contrary to the views expressed by enactivists. Nevertheless, there is some awareness within recent studies using Text World Theory that experience should be included mainly through the notion of emotional aspects. Whiteley (2010, p.174-188) for instance builds on her own reading experience and real readers experiences to create participation-worlds in which emotional responses are tracked. Moreover, Gavins & Stockwell (2012, p.4) stress that 'the ultimate reason why any one reader is

disposed to lean more towards one interpretation or another is driven by their own emotional history, life experience and outlook'.

Thirdly, Conceptual Blending Theory fails to take any stance regarding the enactivist challenges. Instead, Fauconnier and Turner's (2002) model is thoroughly spatial and representational without any consideration for experiential embodiment. However, Conceptual Blending Theory was conceived in the field of cognitive linguistic metaphor studies where embodied simulation is thoroughly present in both Turner's (e.g. Lakoff & Johnson, 1980a) as Fauconnier's (e.g. Fauconnier, 1994) individual work. Notwithstanding, nor Fauconnier and Turner's (2002) book, nor Schneider and Hartner's (2012) collection of contributions on Conceptual Blending Theory include the notion of human experience or embodiment. Nevertheless, although the representational bias of Conceptual Blending is refuted by many enactivists, the blending model is not incompatible with the notion of embodiment, because mental spaces could easily comprise the embodied experience as well. However, such an enterprise still needs to be undertaken.

Consequently, although the challenges regarding the representational bias and the lack of embodiment put forward by enactivist theorists are increasingly relevant and supported in the general field of cognitive sciences, Schema Theory, Text World Theory and Conceptual Blending have done surprisingly little to meet these challenges. Nevertheless, recent studies in literary studies have started to acknowledge the importance of embodied experience for literary processing. For instance, Caracciolo's (2014, 2018) 'more-than-representational' approach to literature, which tries to combine the embodied emphasis with a representational account of literature comprehension, could provide a basis on which the discussed theories could render their assumptions more aligned or at least in discussion with the enactivist claims.

In conclusion, although all three cognitive models are based on established cognitive theories, their respective additions, adaptations and elaborations sculpt the theory into a useful model for literary texts without validating their constructs, yet claiming or implying to possess the same cognitive validity as the notions on which their model is based. Moreover, all three models have hitherto failed to meet or even consider the challenges raised by the influential enactivist shift in cognitive sciences. Related to this, an interesting feature of the three theories discussed in this dissertation, is that the cognitive notions on which they build, are frequently more than 35 years old. However, in the meantime these notions have evolved as well within the field of cognitive psychology. Therefore, it would be interesting and valuable if cognitive literary critics would incorporate state of the art theories as well, such as dual-coding theories (e.g. Kahneman, 2011). Nevertheless, these shortcomings do not render the three theories invaluable but merely remind literary scholars to remain nuanced in their claims when

applying them. The main pitfall for theorists adopting one of more of these models is the overly broad application of its claims. If scholars beware of these pitfall and strive for improving the cognitive and empirical fundamentals of the theories, Schema Theory, Text World Theory or Conceptual Blending can give interesting insights. It remains, however, undiscussed which theories are suited to clarify what aspects of literary fictions. For the remainder of this dissertation I will discuss the object of study and the goals of these theories and compare their tools and method in order to establish their individual value for literary studies.

7. Comparing the Theories

Now that Schema Theory, Text World Theory and Conceptual Blending have been thoroughly introduced, discussed and applied, a detailed comparison of their object, goals, concepts and methods is to be conducted. Since the increasing popularity of cognitive models in the field of literary studies, scholars have started using and devising a plethora of similar theories. This chapter examines the relation between three of the most influential cognitive models of the past decade. My scope is to clarify how these theories overlap and vary on different levels. Moreover, it will be discussed in which way these cognitive approaches could be valuable for literary studies. Through an analysis of the differences and similarities regarding explaining comprehension and interpretation, it will be argued that all three theories together can be valuable to literary studies and provide a comprehensive, explanatory model of the process of literary interpretation. For reasons of clarity, I have divided my comparison in four short discussions on the following topics: object of study, goals, concepts and methodological value.

7.1. Object of Study - Between Comprehension and Interpretations

Before we can examine the goals and methods of Schema Theory, Text World Theory and Conceptual Blending, we need to establish what their object of study is. In other words, what do these theories study? Models from cognitive literary studies usually occupy themselves with studying either text comprehension or text interpretation. On the one hand, studies into text comprehension are primarily interested in the process of reading. In her book *Narrative Comprehension* Catherine Emmott (1997), for instance, aims to examine how readers monitor change through the reading process of literary fiction. In other words, the study of comprehension is about text processing. On the other hand, interpretation is the search for deeper symbolic structures in literary texts. This has always been the main object of study of literary criticism, in order to understand why works became canonised (Cook, 1994, p.127). It even seems that literary texts cannot go without interpretation. According to Jonathan Culler (1997, Ch.2), one of the main characteristics of literature is its fictionality and this fictionality leads the text's relation to the world into the realm of interpretation. Moreover, Culler (1999, ch.2) sees the context of a literary text as a literary one, which implies that we as reader must decide what this text is about beyond its literal storyline.

So, what can be said about Schema Theory, Text World Theory and Conceptual Blending regarding comprehension and interpretation? First, Schema Theory in Bartlett (1932) as well as Schank and Abelson (1977) and in Discourse Analysis altogether (e.g. Emmott, 1997; Rumelhart, 1975) is primarily

concerned with how we recalled and stored information of the world and this mechanism lies at the basis of text comprehension. Cook (1994), however, intends something completely different with his schema-based theory. In *Discourse and Literature*, Cook (1994) develops a theory of discourse deviation with which he aims to define the distinctive characteristic of literature. Cook's (1994) quest is to define and theorise literariness. Consequently, in analogy with the known interpretative tendency of literary studies, Cook (1994) uses Schema Theory to put forward and justify interpretations of literary texts. In his analysis of Blake's *The Tyger*, James' *The Turn of the Screw* and *The Windhover* by Hopkins, Cook (1994, ch.8) first interprets the texts by means of schemata and then attempts to clarify how the reader's schemata are refreshed upon reading. A similar tendency can be observed in a series of publications by Semino (1995, 1997, 2001, 2009). In Semino (1995), for instance, two poems, Plath's *The Applicant* and Heaney's *A Pillowed Head*, are analysed and interpreted. Moreover, Semino (1995) explicitly admits that her focus lies on interpretations, as she aims to examine the role of schemata in the interpretation of the poems (p.84). In conclusion, even though Schema Theory was developed as a theory of comprehension and has served as such for many decades, the adoption by literary studies has shifted its enterprise towards the realm of interpretation examining 'how interpretations are arrived at in the interactions between texts and the mind' (Semino, 2001, p.345).

Text World Theory clearly defines itself as a model of discourse comprehension. 'This means that it is concerned not just with how a particular text is constructed but how the context surrounding that text influences its production and reception' (Gavins, 2007, p.8). Werth's (1999) model aims to provide an online model of text processing by means of text worlds. Neither Werth (1999) nor Gavins (2007) make interpretations of literary texts, although both monographs frequently use and analyse literary texts for illustrative purposes. However, since Sara Whiteley's (2010, 2011) claim for more experiential and emotional research within Text World Theory, more interpretational strategies and awareness have risen. Although Hidalgo Downing (2000b) already uses Text World Theory to interpret Joseph Heller's *Catch-22*, it is not until Text World Theory's focus on emotion that literary interpretations have become more frequent. Gavins and Stockwell (2012, p.46), for instance admit that "stylistics is not primarily concerned with discovering and elaborating new, innovative interpretations; though this sometimes occurs as a result of close textual attention". Consequently, Text World Theory still is primarily concerned with modelling text comprehension, but in their analyses, text world theorists often slide into interpretational strategies.

Finally, since Conceptual Blending Theory was initially developed as a model of metaphor processing (see Fauconnier & Turner, 1998), it was primarily concerned with comprehension. Similarly, the elaborated model in *The Way We Think* (Fauconnier & Turner, 2002) is a model of human thought and examines basic human comprehension of common situations. However, precisely its

roots in metaphor theory have caused a shift in the use of Conceptual Blending Theory from comprehension to interpretation. Since a literary interpretation of a text consist of indicating and justifying what the text is really about beyond the basic meaning of its storyline, the text is considered as a metaphor itself. *A Pursuit Race* is not only about the addict, William Campbell unable to do his job, it is about homosexual self-hatred. Consequently, if Conceptual Blending is adopted to study literary texts, the analyst must interpret the text first. Barbara Dancygier's (2012) analysis of Joseph Heller's *Catch-22*, for instance, is a complex argumentation for her interpretation of the novel as an interaction between two inversely proportional temporal storylines, from which Yossarian eventually must escape (p.46). Blending analyses seem to give cognitively sound accounts of how textual meaning are produced in the reader's mind, but instead such analyses are often merely justifications of the analysts preferred interpretation (see Schneider, 2012, p.7-8). Consequently, the application of Conceptual Blending on literary fiction is unavoidably a process of interpretation, although it was not conceived as such.

In summary, Schema Theory was developed as a theory of comprehension and is still used as such in AI and discourse analysis. However, in literary studies Schema Theory has proved itself valuable for interpretational analyses as well. Text World Theory is and remains primarily a theory of discourse comprehension rather than interpretation. Nevertheless, scholars do admit that sometimes interpretations are inevitable (Gavins & Stockwell, 2012), especially when it comes to including emotional aspects in the analysis. Finally, Conceptual Blending was originally a theory of metaphor processing and consequently, its adoption by literary studies has caused analysts to treat texts as metaphors which leads unavoidably to interpretational strategies.

7.2. Goals - Between Explaining and Understanding

Now that I have established the object of study of all three theories regarding text comprehension and literary interpretation, we must ask ourselves: What are the goals of these three cognitive models and what is their place in literary studies?

As I have already mentioned, one of the main goals of literary studies is to find novel and interesting interpretations of literary texts (e.g. Jackson, 2005; Hall, 2003). Consequently, the purpose of literary studies is that of *Verstehen* (or understand). The term was first attributed to humanities by the philosopher Wilhelm Dilthey (1894) in order to express the uniqueness and relevance of the soft sciences against the dominance of the mathematical hard sciences whose main goal is *Erklären* (or explain). Although the discussion on this part of Dilthey's thought is elaborate and complex, the typology does clarify our cause. The object of human studies is not something sensory but an inner

and individual experience, which the process of *Verstehen* transfers to the outside world in order to grasp the expression behind it (Dilthey & Jameson, 1972, p.231-232). According to Dilthey (Ibid.), literary studies are particularly suited to 'understand' their objects of study, namely literary texts. Literary analyses are mainly occupied with examining what a certain text means rather than what it is made of or how it functions. However, as Laucken (1976, p.115) argues, there can be no *Verstehen* without *Erklären*. There is always some kind of reasoning behind the production of meaning. Laucken (1976, p.115) states that when an 'explanation' enables us to reconstruct the actions and experiences of others so that we can see their perspective, the 'explanation' causes 'understanding'. For literary studies this means that when a theory enables analysts to grasp not only their own inner reading experiences but also enables them to grasp what caused others to experience the same level of delight, the theory has led to the 'understanding' of the text. The question however, remains as to what the three theories discussed in the present dissertation do.

In general, Schema Theory as well as Text World Theory and Conceptual Blending seem to be primarily explanatory models. First, Text World Theory aims to explain how texts and discourse in general are processed and comprehended (Gavins, 2007, p.8). Moreover, we have already mentioned that text world analyses are seldom interested in literary interpretations, although it sometimes occurs as a byproduct (see Gavins & Stockwell, 2012).

The matter becomes more complex when we consider Schema Theory and Conceptual Blending. Schema Theory is used for a broad range of purposes such as studies into AI, memory, text comprehension, literariness in general and literary texts in particular. Although, most applications provide an explanation for the way in which texts are produced and comprehended, Schema Theory's application in the field of literary studies has supported literary interpretations of particular literary texts (e.g. Semino, 1995). In other words, it seems as if Schema Theory in literary studies aims to 'understand' literary texts rather than merely 'explain' them. Similarly, Conceptual Blending originally aimed to explain how we make sense of statements combining different domains of knowledge (Schneider, 2012, p.1). Nevertheless, as we have shown above, blending analyses cannot do without interpretations. Consequently, Conceptual Blending appears to be situated in the realm of *Verstehen* as well.

However, there is another possible reason for which models claim to 'explain', but seem to 'understand'. Schema Theory and Conceptual Blending, as opposed to literary studies, do not seek novel understandings of literary texts but try to 'explain' how these 'understandings' are constructed

cognitively. As I have argued earlier on, behind every understanding lies a process of explanation and it is the latter that these models aim to provide.

Nevertheless, this course of action yields a major pitfall. Jameson (Dilthey & Jameson, 1972, p.230) states that providing an 'explanation' of an interpretation, requires the presence of an interpretation that inevitably precedes the 'explanation'. In other words, the 'explanation' of a certain process of *Verstehen* only commences after the fact. As a consequence, scholars 'explaining' a literary interpretation already dispose of an interpretation before their cognitive model has even been addressed. Because of this limitation, blending and schema analyses quickly appear as scholarly attempts to justify certain interpretations under the banner of cognitive sciences (see Weber, 2004, p.519). Indeed, the blending analyses of Hidalgo Downing (2000b) and Dancygier (2012) of *Catch-22* and Cook's (1994) schema analysis of *The Turn of the Screw* put forward a single interpretation, which is then 'explained' by means of the respective cognitive theories. Although I do not desire to criticize the value of these interpretations, this can hardly be what Schema Theory and Conceptual Blending were set out to do. Both theories are repeatedly presented as explanatory models for literary comprehension and interpretation without the pretence to claim what texts really are about. In my analyses of *A Pursuit Race*, I have tried to avoid this pitfall by providing different readings. By suggesting different possible interpretations, I have considered the interpretative freedom of the reader, which is often stressed in these theories (e.g. Semino, 2001). In doing so, my analysis focussed on explaining the 'understanding' of literary fiction, instead of justifying my personal interpretation of the text. I must admit however, that this approach again makes empirical claims of possible real interpretations of real readers and how these are constructed without providing supporting evidence. This shortcoming could be met by including a reader-response analysis.

7.3. Concepts

Schema Theory, Text World Theory and Conceptual Blending all claim to be explanatory and cognitive models for text processing and/or interpretation. We can ask ourselves whether it is possible that three cognitive models of the interaction between literature and cognition co-exist. How can three different theories explain the same process? At a certain level, there must be overlap in concepts and principles. In the following paragraphs, I will discuss the overlap of three concepts, namely mental models, schemata and extended metaphors.

First, Johnson-Laird's (1983) concept of mental models can be considered as the cognitive basis for both Werth's (1999) text worlds and Fauconnier and Turner's (2002) spaces. Schema Theory does not build on mental models because schemata are considered to be different structuring elements of our

cognition (see Brewer, 1987, p.189). Even though both Text World Theory and Conceptual Blending build on the notion of mental models, their respective elaborations and application of the concept are quite different. In Text World Theory, mental models are the cognitive basis for text world. Indeed, Werth (1999, p.73) sees his text worlds as mental models, but Johnson-Laird's (1983) concept was never so detailed and complex as text worlds with sub-worlds, world-builders and so on. The adaptation of mental models by Werth (1999) by building on possible-worlds theory (Eco, 1989; Ryan, 1991) has caused text worlds to deviate considerably from the original concept.

In Conceptual Blending on the other hand, the different mental spaces in the integration network are similar to the concept of mental models. Of course, they are directly inspired by Fauconnier's (1985) own Mental Space Theory, but even that theory is indebted to Johnson-Laird's (1983) theory of mental models. In contrast to the rich concept of text worlds, the spaces in Fauconnier and Turner's (2002) theory are simple spatial representations. In other words, while text worlds are elaborated worlds almost equally complex processes and relations, elements represented in mental spaces are not analysed in detail, they are just present. Moreover, while modal worlds, text worlds and world-switches are different kind of worlds in terms of accessibility and hierarchy, in Conceptual Blending input spaces as well as the generic space and the blended space are all conceived as mental models.

As a consequence, both Conceptual Blending and Text World Theory build on the notion of mental models. However, the way in which mental models are perceived and adopted by both theories differ significantly. While Conceptual Blending remains considerably close to the original concept in order to devise an entire integration network of mental models, Text World Theory has created a detailed typology of rich text worlds straying further away from the original concept.

Secondly, it is obvious that Schema Theory builds primarily on the notion of schemata, as structuring basis of our memory. Schema Theory uses Bartlett's (1932) concept or Schank and Abelson's (1977) concept of schemata in order to establish the way in which activated background knowledge in the form of schemata distort text comprehension, recall and possibly interpretation. Nonetheless, Text World Theory and Conceptual Blending mention schemata as well. In this paragraph, I will discuss the way in which schemata are used in Text World Theory and Conceptual Blending.

On the one hand, Text World Theory uses schemata, referred to as frames, to indicate the knowledge activated in the reader by textual cues. Not the text worlds themselves, but the stored knowledge in the reader's mind is intended with 'frames'. In Text World Theory, texts can appeal to specific knowledge frames, which enable the reader to make inferences in order to achieve text coherence. The task of the analyst in such cases is merely to indicate the activated frame. On the other

hand, Fauconnier and Turner (2002) speak of frames (i.e. schemata) as the structures that both define the input spaces and organise the emergent structure. Consequently, in Conceptual Blending it seems that the input spaces which are a sort of mental models are defined by the reader's preformed schemata. Overall, Fauconnier and Turner (2002) remain vague on what they mean by input spaces or spaces in general.

What both approaches in their treatment of schemata have in common, however, is the neglect of the relevance of schemata to perception. In other words, neither one of the theories acknowledges the fact that activated schemata can steer and distort processing and hence recall. Text World Theory, for instance, merely indicates where the text appeals to certain background knowledge. Similarly, Conceptual Blending simply uses frames to refer to the reader's knowledge used in the construction of integration network without considering the particular influence of schemata on text processing. Consequently, even though Text World Theory and Conceptual Blending both lean on the notion of schemata, the main establishments of studies into schemata are ignored by both theories resulting in merely modelling the interaction between a computer-like human and a literary text instead of real human text processing and interpretation.

Finally, something that lacks in Schema Theory but which Text World Theory and Conceptual Blending have in common, is their focus on metaphors. Indeed, both Text World Theory and Conceptual Blending have an elaborated vision on discursive metaphor processing, i.e. metaphorical relations that extend over long stretches of text. As we already explained, Fauconnier and Turner's theory (2002) is based on domain-mapping theories of metaphor processing (see Lakoff & Turner, 1989). Therefore, the entire concept of integration networks was designed for the analysis of metaphors and was then extended to other aspects of everyday human thought. Even though Text World Theory was conceived as a model of general discourse processing, Werth (1994) has developed an extensive treatment of extended metaphors using Text World Theory. Instead of proposing a holistic blending process, Werth (1994) presents a layered structure in which micro-metaphors together form a kind of 'megametaphor'. However, the adaptation of Werth's (1994) view on metaphors by Gavins (2007, ch.9) is overtly influenced by Conceptual Blending Theory. Gavins claims that micro-metaphors are some kind of bridges that help construct a blended world, in which elements from both the main text world as the micro-metaphors are presented.

There are two main differences between both approaches to metaphors: First, Fauconnier and Turner (2002) have developed a detailed typology of blending processes, while Gavins (2007) merely puts forward the general conception of 'a blend' without theorising any further. Secondly, while according to Conceptual Blending metaphor processing results in a blended space, Text World

Theory claims that readers are constantly toggling between the main text world and the blended world (Gavins, 2007, p.152). There is a considerable body of research suggesting that metaphors are processed almost unconsciously (e.g. Bergen, 2012; Boroditsky & Ramscar, 2002; Gentner & Clement 1988; Gibbs et al., 1997; Shen 1992; Thibodeau & Turgin, 2008; Tourangeau & Rips 1991) which seems to favour the blending process. Notwithstanding this evidence, no specific empirical research has been conducted into the processing of extended literary metaphors, which could require a more active processing due to its novelty and length (Bowdle & Gentner, 1995; 1999; 2005; Gentner & Wolff, 1997; 2000) and thereby making a toggling process plausible. Consequently, further research is needed to establish which model of extended metaphor processing is the most adequate.

In summary, Schema Theory, Text World Theory and Conceptual present some overlap in concepts. For instance, Johnson-Laird's (1983) theory of mental models and Schema Theory in general have had a significant influence on Text World Theory as well as Conceptual Blending. However, Text World Theory and Conceptual Blending have each wandered far away from these preliminary concepts and their established effects. Both theories, for instance, claim to account for processing mechanisms in reading literary texts building on theories of background knowledge, but neglect the possible framing effects of schemata. Furthermore, regarding extended metaphors Text World Theory and Conceptual blending have developed similar and detailed models of processing. Nevertheless, Text World Theory suggests a toggling process, in which readers alternately focus on the main text world and the blended worlds (Gavins, 2007, p.154-155), while Conceptual Blending states that extended metaphor processing results in a holistic and comprehensive blend.

7.4. Methodological Value

Now that we have compared the object of study, the goals and concepts of Schema Theory, Text World Theory and Conceptual Blending, we still need to discuss their respective methodological value for literary studies. For this purpose, I will compare the methods for analysis put forward by the treated theories as well as include my own analyses in part 5 of this dissertation.

First, Schema Theory already proved its utility in psychology, AI and Discourse Analysis as a theory for perception and text comprehension. Abstract structures of our experiences are stored in generalised schemata, which then affect our perception of new experiences. Studies in psychology have shown that existing schemata can distort text memory, comprehension and recall (e.g. Tuckley & Brewer, 2003). Moreover, for Discourse Analysis in particular, Schema Theory has provided a good basis to clarify cohesion and coherence in longer stretches of texts (e.g. Emmott, 1997). In addition, Schema

Theory has proved to be valuable for literary studies as well. As we have already explained, Schema Theory is apt to examine both comprehension and interpretation. Cook (1994) has developed a schema-based theory of discourse deviation for literariness and Semino (1995, 1997, 2001) has used the notion of schemata in order to explain how certain literary interpretations are constructed. In other words, Schema Theory does not only have a solid empirical and cognitive basis, it has the potential to make significant contributions to the analysis of literary texts.

Nevertheless, we must clarify the nature of these contributions. The value of the notion of schema-refreshment (Cook, 1994) and schema-reinforcement (Semino, 1997), for instance, is highly questionable. The central tenet of Cook's (1994) theory is that literature causes schema-refreshment and Semino (1997) adds to this claim that literature can also be schema-reinforcing. Consequently, a large part of their schema analyses is occupied with whether the text refreshes or reinforces existing schemata. Although this concept is a late remnant of the Russian Formalist defamiliarisation, from a cognitive point of view the matter is quite irrelevant as our schema analysis of *A Pursuit Race* has shown. Even though Schema Theory is a perfect tool for such an analysis, literary texts often present both schema-reinforcing and schema-refreshing elements. Indeed, texts that display profound schema-refreshing elements are very rare. Moreover, this mainly depends on what a particular reader already knows and has experienced. Therefore, no real valuable remarks can be made by the schema analyst on this matter.

The real value of Schema Theory for literary analysis is its potential to account for different readings. As I have already established, Schema Theory is mainly occupied with *Erklären*. However, because of its broad cognitive importance, the theory can explain both comprehension and interpretation. Indeed, both Cook (1994) and Semino (1997) have applied the notion of schemata to account for interpretations of poetry as well as literary fiction. Nonetheless, neither Cook nor Semino examine the possibility of different readers establishing different interpretations, even though they both acknowledge this (Cook, 1994, p. 171; Semino, 2001, p.348). In my analysis, I have tried to meet this shortcoming by first merely indicating the possible activation of schemata, plans and themes and then presenting multiple readings. Consecutively, I was able to account for these different readings by pointing out that different readers focussed on different schemata which then framed their further interpretation of the text. However, the proposed readings are still products of my mind or of other scholars (e.g. Fontana, 1984). A more empirically grounded approach would be to include reader-responses in order to obtain a more varied collection of readings.

Secondly, analyses of literary fiction using Text World Theory aim to account for and describe the way in which literary text is processed by means of mental representations and how certain literary texts

achieve their specific literary effect on readers. As a consequence, Text World Theory examines mainly literary text processing, without developing novel literary interpretations, as we have already explained. Text World Theory has several advantages over Schema Theory. For instance, text worlds are incrementally constructed (Semino, 2009, p.55), which enables the analyst to analyse the reading process in detail as it progresses. Moreover, Text World Theory has a clear linguistic and text-structural focus in comparison to Schema Theory that tends to neglect the specific linguistic properties of a literary text. This focus on language and text structure grants the analyst insights in literary texts, which cannot be granted by a schema analysis. My analysis of *A Pursuit Race* for instance clarified how the timeline of the short story was organised and how it affected the reader's experience. In addition, my analysis illustrated that most of the information was given by characters instead of the trustworthy narrator. In doing so, my analysis laid bare the relations between different text worlds clarifying the specific reading process of *A Pursuit Race*. A final advantage of Text World Theory is Sara Whiteley's (2010) addition of participation-worlds, which are a useful tool to follow reader responses while the text progresses. However, the notion of participation-worlds is feasible for critique, namely the lack of a typology and their text-independent nature, which make the variety of possible responses infinite (Whiteley, 2010, p.178).

Nevertheless, Text World Theory also displays some significant methodological limitations. First of all, as I have explained earlier in chapter 6, Text World Theory has a poor empirical and cognitive basis. In other words, the way in which text processing is described by Text World Theory is not necessarily the way in which the literary text is actually processed. Moreover, Semino (2009, p.59) argues that the comprehensive application of Text Word Theory is practically impossible due to its sheer complexity. Indeed, in my analysis of Hemingway's short story, I have simplified the figures and text world structure considerably not only for practical reasons, but also for the sake of clarity.

Finally, Conceptual Blending aims to account for the way in which readers generate meaning based in textual cues by mapping elements across different knowledge domains. In other words, Conceptual Blending shows how reading literary fiction results in a blend of a great variety of (often contradicting) information. For this purpose, Conceptual Blending makes use of mental representations, just as Text World Theory. However, the mental spaces of Fauconnier and Turner (2002) are not described in the same detail as text worlds in Text World Theory. It seems as if spaces in Conceptual Blending are primarily developed as containers of framed knowledge, rather than vivid representations central for the analysis. In addition, mental representations are not merely conceived as passive images, they are part of an active integration network.

The main advantage of the application of Conceptual Blending for the analysis of literary fiction is its detailed and explanatory method. The model enables the analyst to indicate how meaning is created in a detailed and incremental manner. Indeed, in my analysis of *A Pursuit Race* Conceptual Blending allowed me to describe how literary interpretations are incrementally constructed in the reader based on both background knowledge and textual cues. However, the model also presents some considerable shortcomings. Just as Text World Theory, Conceptual Blending becomes impossibly complex when consistently and comprehensively applied to long stretches of text (Semino, 2009, p.59). Furthermore, many of the conclusions of complex blending analyses are painfully obvious and easy to clarify using more straightforward models (see Gibbs, 2000). For instance, in my analysis of Hemingway's short story I have briefly mentioned the possibility of explaining the construction of characters and the experience of the flash-back as the result of a conceptual blend. Nonetheless, an elaborated version of these claims would have led to an immensely complicated reasoning only to achieve obvious conclusions.

In addition, even though Conceptual Blending claims to be occupied primarily with *Erklären*, *Verstehen* is inevitable when conducting a blending analysis. As we have already explained, since blending analyses often treat literary texts as metaphors of broader meanings, interpretation is unavoidable. Consequently, many blending analyses of literary fiction boil down to the justification of the analysts interpretation (e.g. Hidalgo Downing, 2000b). Nonetheless, even though blending analyses are often complex and irrelevant, they have their value: Conceptual Blending is a practical tool to examine and clarify metaphorical relations that lie at the basis of literary interpretation. Therefore, Conceptual Blending can be a useful model for clarifying literary interpretation.

So, what is the value of Schema Theory, Text World Theory and Conceptual Blending? Schema Theory is suited to explain both text comprehension and literary interpretation. Obviously for literary studies, the latter is more relevant. Schema analysis can explain how different readers might end up with different readings based on their existing schemata. However, Schema Theory provides little tools to include linguistic and text-structural effects of a literary text. Text Word Theory is able to meet this shortcoming. The value of Text World Theory for literary studies is that it illustrates how mental representations are incrementally constructed by the reader. Even though it has little cognitive credibility, text world analyses do clearly suggest how complex text structures can have an impact on the reading process. Moreover, the notion of participation-worlds is an interesting way of tracking reader responses. Finally, Conceptual Blending is particularly valuable for literary studies when used to clarify literary interpretation. The mechanism proposed by Fauconnier and Turner (2002) enables

the analyst to examine in detail how certain metaphorical relations such as *A Pursuit Race* is a story about homosexual self-hatred' are constructed in the reader's mind.

7.5. Conclusion - Explaining Literary Understanding

In this chapter, I have compared the Schema Theory, Text World Theory and Conceptual Blending regarding their object of study, goals, concepts and methodological value. Concerning the concepts used by the three theories, I have observed considerable overlap. It appears that Schema Theory functions as one of the preliminaries for both Text World Theory as Conceptual Blending. However, both theories do not only build on schemata but on mental models as well. In addition, Text World Theory and Conceptual Blending have a similar model of extended metaphor processing.

Nevertheless, there are considerable differences between Schema Theory, Text World Theory and Conceptual Blending as well, especially when considering their objects, goals and methods. In summary, Schema Theory studies text comprehension as well as interpretation and has the goal to 'explain' both. However, its value for literary studies lies in its capacity to account for the way in which different readers end up with different interpretations. Text World Theory studies and 'explains' text comprehension and grants valuable insights in text structure and its impact on the reading experience, which can be tracked by means of participation-worlds. Moreover, I have established that Conceptual Blending enables the analyst to 'explain' how literary interpretations are constructed in the mind of the reader. Indeed, blending analyses have a considerable explanatory power when they are applied to appropriate aspects of literary fiction, and not for every single obvious characteristic.

A final question remains to be answered: are Schema Theory, Text World Theory and Conceptual Blending compatible? I will take the first step in combining these three models of processing in order to achieve a more comprehensive understanding of the process of literary interpretation. First, a schema analysis lays bare different readings and how these different readings are the result of different readers' background knowledge. In other words, it accounts for various interpretations and their cause. Then, what Schema Theory lacks in linguistic attention, Text World Theory compensates by highlighting text structures that can influence or even impede a straightforward reading process. While doing this, the analyst can track online reader responses in participation-worlds. Moreover, Text World Theory has an illustrative power, because text world figures can reveal and indicate patterns that are otherwise hard to pinpoint. Consequently, it is hardly surprising that recently, scholars have argued to use Text World Theory for educational purposes (e.g. Burke, 2004; Giovanelli, 2010, 2016). Finally, if Schema Theory indicated and accounts for different interpretations, Conceptual Blending enables the analyst to explain how these different interpretations are incrementally constructed in a metaphorical blend. Together, these three theories

give a detailed account of how literary interpretations are caused, affected and constructed by both the reader's background knowledge and textual elements.

When we translate this suggestion to my earlier analysis of Hemingway's *A Pursuit Race*, we can draw the following conclusion: First, the schema analysis showed that unexperienced readers, who pay little attention to the initial metaphor, are steered to interpret the text as a story of the devastating consequences of a drug-addiction, while more attentive readers will focus on the initial metaphor. This kind of reader learns how life is a pursuit race and what happens if we are caught and lose. Finally, literary scholars studying Hemingway as an author or examining the strangest element in the story, namely the wolf, can interpret the short story as Hemingway's expression of his own homosexual self-hatred. Now that the different readings are accounted for, my blending analysis shows how these interpretations could be incrementally constructed in an integration network. The complex blend at the end includes the parallels between Campbell's job and the pursuit race, but also the similarities between a pursuit race and life, insomuch that when the reader learns that Campbell is caught by the burlesque show, the blend is run: Campbell has lost the race and consequently has lost in life. Moreover, the input space of homosexual love adds the interpretations that Campbell is caught by and lost in his homosexual desires. Finally, my text world analysis suggests how some features of the text structure, namely the flashback and the contradictions in the epistemic worlds, affect the reading process of the short story, which can be tracked by means of participation-worlds. Overall, the application of all three theories can provide a comprehensive explanation for the literary reading process and the process of literary interpretation. In other words, together, Schema Theory, Text World Theory and Conceptual Blending explain literary understanding.

8. Conclusion

Since the cognitive turn in the early 1980s, a plethora of theories have been conceived to study how literature works. This proliferation, however, has led to a stagnation in conceptual progress. Instead of further developing existing theories, scholars prefer to develop new theories. Moreover, recent voices have questioned not only the cognitive and empirical validity but also the overall value of these theories for the study of literary fiction. The present dissertation aimed at meeting these shortcomings by analysing and comparing three of the most influential cognitive theories in the field of cognitive literary studies: Schema Theory, Text World Theory and Conceptual Blending. In the course of this dissertation, the claims of the three models were first introduced, applied to a short story (*A Pursuit Race*) and then discussed and compared laying bare the similarities and differences. Moreover, I have examined the cognitive and empirical validity of all three theories as well as their methodological value and compatibility for the application to literary fiction.

First of all, concerning the concepts used by the three theories, I have observed some overlap. It appears that Schema Theory functions as a basis for both Text World Theory as Conceptual Blending. However, both theories do not only build on schemata but on mental models as well. In addition, Text World Theory and Conceptual Blending have a considerably similar model of extended metaphor processing. Nevertheless, there are considerable differences between Schema Theory, Text World Theory and Conceptual Blending as well, regarding their objects, goals and methods. In summary, Schema Theory examines both text comprehension and interpretation, and its goal is to 'explain' both. However, its value for literary studies lies in its capacity to account for the way in which different readers end up with different interpretations. Text World Theory aims to 'explain' text comprehension and grants valuable insights in text structures and their effect on the reading experience, which can be tracked by means of participation-worlds. Moreover, it was established that Conceptual Blending enables the analyst to 'explain' the way in which literary interpretations are incrementally constructed in the mind of the reader.

Secondly, although all three models build on cognitively established concepts, they all build on these concepts in order to sculpt a more useful model for literary texts without validating their constructs, yet claiming the same cognitive validity as the notions on which their model is based. On the one hand, Schema Theory stays the closest to its empirically established roots. Conceptual Blending and Text World Theory, on the other hand, have theorised far beyond the established claims of their cognitive basis rendering their validity questionable. Moreover, the three models have hitherto failed to take into consideration the challenges raised by the influential enactivist shift in cognitive sciences that attack directly their basic assumptions.

Finally, I have claimed that, together, all three theories can be valuable to literary studies and provide a comprehensive, explanatory model of literary interpretation. Schema Theory explains how different readers end up with different readings based on their existing schemata. Text World Theory meets the linguistic neglect of Schema Theory by illustrating how mental representations are incrementally constructed by the reader and suggesting how complex text structures affect the reading process. Moreover, the notion of participation-worlds is an interesting way of tracking reader responses. Conceptual Blending clarifies the literary interpretation process. Its mechanism enables the analyst to examine the metaphorical interpretations constructed in the reader's mind. In this way, the combination of the three models grant the literary scholar a profound analysis of the literary interpretation process

Since the present study is only a first step towards a more unified field of cognitive literary studies, much remains to be done. Further research should broaden the scope of this endeavour by comparing more and other cognitive theories than the three discussed here. Moreover, a series of experimental studies could attempt to validate or disprove some of the hypotheses claimed by Text World Theory and Conceptual Blending, in order to render the models more cognitively valuable. Finally, studies into the process of literary interpretation could apply or validate the combination of the three approaches as I suggested in this dissertation.

Overall, Schema Theory, Text World Theory and Conceptual Blending, when applied properly and with nuance can grant us insight in the process of literary interpretation. However, positivist enthusiasm in the past has caused cognitive models of literature to mushroom with little cognitive and empirical validity. If the field of cognitive literary studies wants to retain (or obtain) scientific credibility and social relevance, scholars must start comparing and examining the theories at hand, instead of simply adding to the mass. This shift in perspective would not only simplify the field, it could also improve the quality and validity of the claims being made, resulting in a clearer and more adequate cognitive explanation of the process of literary interpretation. In doing so, literary scholars would not only be able to read Hemingway and analyse the meaning of his texts, but also explain how this meaning is constructed. The cognitive literary scholar doesn't make us see the beauty of the crown jewels but explains how and why we see it.

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Appendix - *A Pursuit Race*

WILLIAM CAMPBELL had been in a pursuit race with a burlesque show ever since Pittsburgh. In a pursuit race, in bicycle racing, riders start at equal intervals to ride after one another. They ride very fast because the race is usually limited to a short distance and if they slow their riding another rider who maintains his pace will make up the space that separated them equally at the start. As soon as a rider is caught and passed he is out of the race and must get down from his bicycle and leave the track. If none of the riders are caught the winner of the race is the one who has gained the most distance. In most pursuit races, if there are only two riders, one of the riders is caught inside of six miles. The burlesque show caught William Campbell at Kansas City.

William Campbell had hoped to hold a slight lead over the burlesque show until they reached the Pacific coast. As long as he preceded the burlesque show as advance man he was being paid. When the burlesque show caught up with him he was in bed. He was in bed when the manager of the burlesque troupe came into his room and after the manager had gone out he decided that he might as well stay in bed. It was very cold in Kansas City and he was in no hurry to go out. He did not like Kansas City. He reached under the bed for a bottle and drank. It made his stomach feel better. Mr. Turner, the manager of the burlesque show, had refused a drink.

William Campbell's interview with Mr. Turner had been a little strange. Mr. Turner had knocked on the door. Campbell had said: "Come in!" When Mr. Turner came into the room he saw clothing on a chair, an open suitcase, the bottle on a chair beside the bed, and someone lying in the bed completely covered by the bed-clothes.

"Mister Campbell," Mr. Turner said.

"You can't fire me," William Campbell said from underneath the covers. It was warm and white and close under the covers. "You can't fire me because I've got down off my bicycle."

"You're drunk," Mr. Turner said.

"Oh, yes," William Campbell said, speaking directly against the sheet and feeling the texture with his lips.

"You're a fool," Mr. Turner said. He turned off the electric light. The electric light had been burning all night. It was now ten o'clock in the morning. "You're a drunken fool. When did you get into this town?"

"I got into this town last night," William Campbell said, speaking against the sheet. He found he liked to talk through a sheet. "Did you ever talk through a sheet?"

"Don't try to be funny. You aren't funny."

"I'm not being funny. I'm just talking through a sheet."

"You're talking through a sheet all right."

"You can go now, Mr. Turner," Campbell said. "I don't work for you anymore."

"You know that anyway."

"I know a lot," William Campbell said. He pulled down the sheet and looked at Mr. Turner. "I know enough so I don't mind looking at you at all. Do you want to hear what I know?"

"No."

"Good," said William Campbell. "Because really I don't know anything at all. I was just talking." He pulled the sheet up over his face again. "I love it under a sheet," he said. Mr. Turner stood beside the bed. He was a middle-aged man with a large stomach and a bald head and he had many things to do.

"You ought to stop off here, Billy, and take a cure," he said. "I'll fix it up if you want to do it."

"I don't want to take a cure," William Campbell said. "I don't want to take a cure at all. I am perfectly happy. All my life I have been perfectly happy."

"How long have you been this way?"

"What a question!" William Campbell breathed in and out through the sheet.

"How long have you been stewed, Billy?"

"Haven't I done my work?"

"Sure. I just asked you how long you've been stewed, Billy."

"I don't know. But I've got my wolf back," he touched the sheet with his tongue. "I've had him for a week."

"The hell you have."

"Oh, yes. My dear wolf. Every time I take a drink he goes outside the room. He can't stand alcohol. The poor little fellow." He moved his tongue round and round on the sheet. "He's a lovely wolf. He's just like he always was." William Campbell shut his eyes and took a deep breath.

"You got to take a cure, Billy," Mr. Turner said. "You won't mind the Keeley. It isn't bad."

"The Keeley," William Campbell said. "It isn't far from London." He shut his eyes and opened them, moving the eyelashes against the sheet. "I just love sheets," he said. He looked at Mr. Turner.

"Listen, you think I'm drunk."

"You are drunk."

"No, I'm not."

"You're drunk and you've had D.T.'s."

"No." William Campbell held the sheet around his head. "Dear sheet," he said. He breathed against it gently. "Pretty sheet. You love me, don't you, sheet? It's all in the price of the room. Just like in Japan. No," he said. "Listen Billy, dear Sliding Billy, I have a surprise for you. I'm not drunk. I'm hopped to the eyes."

"No," said Mr. Turner.

“Take a look.” William Campbell pulled up the right sleeve of his pyjama jacket under the sheet, then shoved the right forearm out. “Look at that.” On the forearm, from just above the wrist to the elbow, were small blue circles around tiny dark blue punctures. The circles almost touched one another. “That’s trie new development,” William Campbell said. “I drink a little now once in a while, just to drive the wolf out of the room.”

“They got a cure for that,” “Sliding Billy” Turner said.

“No,” William Campbell said. “They haven’t got a cure for anything.”

“You can’t just quit like that, Billy,” Turner said. He sat on the bed.

“Be careful of my sheet,” William Campbell said.

“You can’t just quit at your age and take to pumping yourself full of that stuff just because you got in a jam.”

“There’s a law against it. If that’s what you mean.”

“No, I mean you got to fight it out.”

Billy Campbell caressed the sheet with his lips and his tongue. “Dear sheet,” he said. “I can kiss this sheet and see right through it at the same time.”

“Cut it out about the sheet. You can’t just take to that stuff, Billy.”

William Campbell shut his eyes. He was beginning to feel a slight nausea. He knew that this nausea would increase steadily, without there ever being the relief of sickness, until something were done against it. It was at this point that he suggested that Mr. Turner have a drink. Mr. Turner declined. William Campbell took a drink from the bottle. It was a temporary measure. Mr. Turner watched him. Mr. Turner had been in this room much longer than he should have been, he had many things to do; although living in daily association with people who used drugs, he had a horror of drugs, and he was very fond of William Campbell; he did not wish to leave him. He was very sorry for him and he felt a cure might help. He knew there were good cures in Kansas City. But he had to go. He stood up.

“Listen, Billy,” William Campbell said, “I want to tell you something. You’re called ‘Sliding Billy.’ That’s because you can slide. I’m called just Billy. That’s because I never could slide at all. I can’t slide, Billy. I can’t slide. It just catches. Every time I try it, it catches.” He shut his eyes. “I can’t slide, Billy. It’s awful when you can’t slide.”

“Yes,” said “Sliding Billy” Turner.

“Yes, what?” William Campbell looked at him.

“You were saying.”

“No,” said William Campbell. “I wasn’t saying. It must have been a mistake.”

“You were saying about sliding.”

“No. It couldn’t have been about sliding. But listen, Billy, and I’ll tell you a secret. Stick to sheets, Billy. Keep away from women and horses and, and—” he stopped “—eagles, Billy. If you love horses you’ll get horse-shit, and if you love eagles you’ll get eagle-shit.” He stopped and put his head under the sheet.

“I got to go,” said “Sliding Billy” Turner.

“If you love women you’ll get a dose,” William Campbell said. “If you love horses—”

“Yes, you said that.”

“Said what?”

“About horses and eagles.”

“Oh, yes. And if you love sheets.” He breathed on the sheet and stroked his nose against it. “I don’t know about sheets,” he said. “I just started to love this sheet.”

“I have to go,” Mr. Turner said. “I got a lot to do.”

“That’s all right,” William Campbell said. “Everybody’s got to go.”

“I better go.”

“All right, you go.”

“Are you all right, Billy?”

“I was never so happy in my life.”

“And you’re all right?”

“I’m fine. You go along. I’ll just lie here for a little while. Around noon I’ll get up.”

But when Mr. Turner came up to William Campbell’s room at noon William Campbell was sleeping and as Mr. Turner was a man who knew what things in life were very valuable he did not wake him.