The oceanic mind: a study of emotion in literary reading
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Chapter 3

Literary reading-induced mental imagery

3.0 Introduction

Robert Louis Stevenson, one of the greatest storytellers in the English language, wrote a novel called *The Ebb Tide* (1894) about a character who gets shipwrecked on an island. Marooned with him is a copy of Virgil’s complete works. Stevenson describes how the castaway reads the book incessantly to pass the time. He tells as well about something that might be deemed as rather odd. During the reading process, the images of the places and locations that are created in the mind of the castaway are not those that Virgil directly describes in his book, as one might expect, but something completely different. In Stevenson’s words “a phrase of Virgil speaks not so much of Mantua or Augustus, but of English places and the student’s own irrevocable youth” (2). Expanding on this he writes:

> Visions of England at least would throng upon the exile’s memory: the busy schoolroom, the green playing-fields, holidays at home, and the perennial roar of London, and the fireside, and the white head of his father (2).

What is happening here? The character in the novel appears to ‘ignore’ or ‘bypass’ the physical locations described by Virgil and somehow replaces them with his own idiosyncratic and fragmented imagery of locations, people and events from his own childhood, more specifically of his home and of a primary caregiver. Why does this occur? What process is at work here? Does this also occur when real people read works of literature? These are the questions that I will seek to address in this chapter which will be on the nature of ‘perception’ with regard to mental images that are produced in the minds of people when they read literature. For the sake of ease, I will call this phenomenon Literary Reading Imagery (LRI).

In the previous chapter I explained how the perception of clearly defined objects in the world relies to a significant extent on light stimuli that are picked up by the cones of the photoreceptors in the retina. LRI, however, has a less direct stimulus. There is no immediate, ready-formed image ‘out there’ in the world: just words on the page. This means that there must be a profound difference between the perception of real objects in the world — even artistic objects, which undoubtedly require far more affective processing than everyday objects — and culturally-determined, linguistic symbols. Instead of being primarily ready-formed and hence relying to a large extent on the bottom-up process of patterns of light striking the retina, reading-induced ‘vision’ must be grounded in something else. It is highly plausible that the elementary base for this kind of visual input comes from our emotive and somatically infused long-term memory. As a result, the kind of imagery that gets channelled is likely to be grounded in the indistinct, unconscious remembrance of past events, past locations and past loved ones: not too dissimilar to what Stevenson describes in the above literary citation.

I will argue that since our childhood memories — i.e. the important places and people from our personal pasts — are the most emotive and most enduring kind, they are most prone to unconscious activation while reading literature in order to flesh out all kinds of situations in novels. I will first discuss what neurobiology, cognitive psychology, philosophy and literary theory have to say about mental imagery. I will then test my own intuitions with some

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1 This is one of three novels that Stevenson co-wrote with his step-son Lloyd Osbourne.

2 This episode is cited by Manguel in a similar context (210).
rudimentary experiments based on a number of reader-response questionnaires. Finally, I will attempt to draw some tentative conclusions, which will be carried forward into the second part of this thesis.

3.1 The basics of mental imagery
Mental imagery that is produced while reading literature is a robust phenomenon. To test this, recall, if you can, a moment in your life when you realised that one of your favourite novels was being made into a film. Can you remember the excitement and the anticipation you felt? Perhaps, though you can also recall your disappointment once you were in the cinema and confronted with those opening images. Some of you may have thought, as I have, ‘that is not her’, and ‘that is not him’, and ‘they do not live there’. Seem familiar? If not, consider Wolfgang Iser’s thoughts from The Act of Reading on this.\(^3\)

If, for instance, I see the film of Tom Jones, and try to summon up my past images of the character, they will seem strangely diffuse, but this impression will not necessarily make me prefer the optical picture. If I ask whether my imaginary Tom Jones was big or small, blue-eyed or dark-haired, the optical poverty of my images will become all too evident, but it is precisely this openness that will make me resent the determinacy of the film version (138).

Iser suggests here that the optical poverty of the images induced by reading literature paradoxically leads to a sense of directness. He was not the first to make such an observation.\(^4\) Why is it that our LRI is so robust? What are those characters and locations that we subconsciously call up when reading literature? Why do they seem to be so important to us as individuals? And why will this impoverished mental imagery not give way to the visually far superior, vivid delights that the movie industry has to offer us? Some of these questions will be dealt with in this and later chapters.\(^5\)

I agree with Iser when he says that “in reading literary texts, we always have to form mental images” (137). This is borne out in psychology by the radical-imagery hypothesis which states that subjects convert visual and verbal stimuli to images that are then stored in memory. Zull supports this: “comprehension often requires us to make images out of language” (171). Iser suggests something more complex, namely that “our mental images do not serve to make the character physically visible; their optical poverty is an indication of the fact that they illuminate the character, not as an object, but as a bearer of meaning” (138). If we were to think about this statement in psychological terms for a moment, we could suggest that characters are optically poor because our subconscious mind somehow wishes us to downplay the details and to focus on more fundamental aspects of meaning. But what is that meaning? Why do LRI take on such

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\(^3\) Such reception theories were based largely on the phenomenology of Ingarden in the 1930s, who, in turn, was much influenced by the philosophy of Husserl. Its main proponents in the 1970s were Iser (1971; 1978) and Jauss (1974), the latter of whom spoke of how cultural knowledge makes up our ‘horizon of expectations’ by which we gauge all texts.

\(^4\) In his Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful (1757), Edmund Burke puts forward his theory of ‘indistinctness’ as an inherent property of the sublime in art.

\(^5\) Admittedly, on occasion this process can be reversed when the visual film medium is powerful enough to overcome the original book imagery, although this does not appear to happen often. Two examples that spring to mind for me are Pride and Prejudice and The Lord of the Rings both of which have been filmed very successfully, the former for television and the latter for cinema. As a result I find that these filmic products are now influencing my original reading-induced mental imagery. Why these two and no others is as yet unknown to me.
seemingly profound status? Is this also why they remain so forceful and show such longevity when they are confronted with corresponding real images in cinema theatres? I believe that the imagery produced while reading literature is so powerful, in part, because it is fundamental to who we are as individuals and where we came from. The ‘meaning’ that participants and indeed locations and activities carry in the mental imagery of literary readers appears to be bound to those three most fundamental philosophical questions: Who are we? Where did we come from? Where are we going?

There are different kinds of images that are formed in the brain. First, in the real world, there are everyday visual images which can be perceived. This includes objects such as houses, trees, people, etc. There are aesthetic visual images in the real world too such as sculpture, architecture, figurative painting, film, etc. We might for a moment make a distinction here by thinking of them in Alhazen’s terms of ‘pure perception’ for everyday objects in the world and ‘pure sensation’ for art objects. For both of these, initial neural processing probably takes place in broadly the same way: light carrying the image strikes the retina and then the information travels via the central areas of the brain on to the visual cortex. Second, there is the mental imagery of thinking and reflection on the one hand, which is largely conscious, and that produced while dreaming, day dreaming, reading literature, etc., which is largely unconscious. My emphasis here will be solely on the last of these: literary discourse processing. There is thus a basic difference between processing of literature and film. There is a certain aspect of ‘givenness’ in visual objects that has been fashioned to evoke aesthetic and emotive responses in viewers: elements like form, colour, depth, duration, etc., are already to a large extent present. Of course, there is no one-to-one mapping, but there is a relatively concrete source. Literature is different. In literature there are but black marks on the page. So if the mental images produced while reading literature rely on vision as its primary pictorial input only inasmuch as it involves apprehending the words, where do those images come from? The answer must have something to do with the mnemonic, somatic, visual and affective parts of the brain.

Let us start with the admission that literary reading is not purely a visual act: there are certainly tactile aspects to it and most probably auditory and olfactory ones too. The literary critic M. H. Abrams says of such literature-induced mental images that their apprehension is not just a question of visual but also of auditory, tactile, thermal, olfactory, gustatory and kinaesthetic qualities (81). Manguel echoes this: “the act of reading establishes an intimate, physical relationship in which all the senses have a part: the eyes drawing the words from the page, the ears echoing the sounds being read, the nose inhaling the familiar scent of paper, glue, ink, cardboard or leather, the touch caressing the soft or rough page, the smooth or hard binding, even the taste at times, when the reader’s fingers are lifted to the tongue” (244). However, notwithstanding this, let our focus here be on vision, or paradoxically the lack of it, and let us first see how the natural and social sciences account for mental imagery.

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6 There is a novel idea in neuroscience that can be subsumed under the dictum ‘seeing the world is mapping the world’. The experiment-driven argument is that “the physical arrangement of neurons that fire when we see an object is a map of the physical structure of the object itself” (Zull, 144). The original experiments were conducted on monkeys by Roger H. B. Tootell et al. (1988). Kosslyn also argues in his work Image and Brain (1994) that these physical maps, consisting of connections of neurons, are such things as remembering is based on.

7 This is a somewhat simplified account.
3.2 The cognitive-neurobiology of mental imagery

A mental image can be defined in neurological terms as “a reassembled or unified set of neuronal connections” (Zull 165). This much we know, even if neuroscience does not yet have a complete explanation of mental imagery, as Zull suggests (144). Notwithstanding, many things are known about this phenomenon. For example, experiments have shown that mental imagery makes use of the visual cortex just like the perception system does. So, in this processing sense, the two forms of imagery, real and mental, are similar. The great dissimilarity, of course, is that the one relies on direct stimuli from the outside world while the other relies on mind-based input. The latter come from long-term memory: episodes that were first experienced as visual input, perhaps many years earlier. A key question is where and how this information is stored? Two other questions that pertain particularly to LRI are: why and how does mental imagery get ‘triggered’? And what is the nature and make-up of this imagery?

Before proceeding, let us first briefly revisit memory. From chapter one we will recall that retrieval is important for the formation of mental images and that it is a constructive process bringing information together from lots of different anatomical sites. Bartlett’s words that “affective attitudes influence recall” are important, as is his observation that, in particular, the nature of the recalled event may tend to produce “stereotyped and conventional reproductions which adequately serve all normal needs, though they are very unfaithful to their originals” (55). From this we may deduce that mental imagery seems to be of a distorted yet conventional kind. A plausible link from the core cognitive act of reading words on the page to the emotive act of experiencing LRI, might be found in the earlier-mentioned notion of retrieval structures. In Comprehension Kintsch claimed that these retrieval structures are activated by cues in short-term memory that communicate with long-term memory and that just one cue can activate a whole event or episode in a relatively wholesale manner. The conclusion drawn from this was that all of our memories are potentially just one step away. In the first chapter a division was also made between explicit and implicit memory. There, we saw how implicit memory involves little conscious effort and flows automatically, while explicit memory must be retrieved deliberately. We learned too how implicitly processed stimuli activate the amygdala without activating explicit memories or otherwise being represented in consciousness (LeDoux 203). In light of this, it can be proposed that LRI is primarily concerned with implicit rather than explicit memory.

The parts of the brain that are active when we experience mental images from the fragmented parts of our memory are located in the integrative cortex, just in front of the visual cortex (Zull 166). Its position means that it is very close to other core sensory areas such as the auditory cortex and the somatic area. As such: “it is a short journey for signals to travel from these sensory regions to the integrative back cortex” (Zull 155). It is here where the pieces of information come together and where a lot of mental image processing is believed to occur. As we saw, there are two pathways which take information out of the visual cortex during visual processing. The upper pathway deals with spatial arrangement, while the lower one deals with object recognition. A rough analogy here may be made between episodic and semantic memory. To the best of my knowledge there has been no neurobiological research done specifically on the nature of LRI. The difficulty in finding an appropriate testing methodology has no doubt been a major hindrance to this. Therefore, I need to look at a similar notion in order to draw some plausible analogies. Writing on the nature of mental images that occur during moments of reflection rather than reading, Zull remarks: “whatever the topic, my brain has vague but

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8 Experiments charting both cerebral blood flow and electronic activity in the brain have confirmed this. These experiments, conducted by Martha J. Farrah (1988), involved asking subjects to imagine locations and objects from memory.

9 I discuss the limitations of current methodologies in the field of literary discourse processing in chapter four.
identifiable images of it. These images slip by in a flash sometimes, and if I try to focus on them, they may disappear […] when we reflect, we bring up images from our past experience” (165). Reflection is more often than not a conscious act, whereas experiencing imagery while reading literature is wholly a subconscious one. Notwithstanding, it seems plausible that LRI would be at least as identifiable. What we have learned about the nature of implicit memory also seems to support my intuitions.

In an early study on the characteristics of visual imagery Kosslyn (1975) argues that the notion of focus in mental imagery, just like focus in visual imagery, is crucial to ‘seeing’: if objects in mental imagery were pictured too close up, then, like visual imagery, they would get out of focus, as it were, and could not be apprehended appropriately. The term he uses to describe the very moment when an object in mental imagery begins to dissipate and become indistinct is ‘overflow’. These general ideas are echoed by psychologist Ronald. A. Finke in his Principles of Mental Imagery (1981) where he discusses the non-photographic and spatial, rather than visual, nature of images (16-21). In a later study conducted by the psychologist Martin A. Conway (1990), subjects were asked to generate a mental image in response to an emotion word. It was found that more than 60 percent of the images related to specific incidents that had occurred in a particular time in their life that had an emotional significance for them. This was not the case for other words that subjects were exposed to, like abstract words. From this experiment it would appear that the idea of emotional words leading to the generation of mental images that are tied up with an emotional event in a person’s individual past is quite plausible.

A further relevant psychological experiment on this topic was conducted by Uffe Seilman and Steen F. Larsen (1989). In their empirical study of ‘reminders while reading’ they put forward their ‘personal resonance theory’. In their experiment they explored the experience of personal relatedness to literary works by studying the recall of specific experiences that occurred during reading. They devised a method of ‘self-probed retrospection’ whereby subjects read a text and marked it where they experienced personal reminisings. These were then discussed after the reading. One group was given a literary text and the other one an expository text. The authors hypothesised two things: (a) that the literary texts would produce mental imagery, involving the reader as an active participant, and (b) that this imagery would occur early in the story because the reader would have to construct a representation of the text world; once this was done, the text world would be able to run on its own (171). The research discovered that both texts produced a similar number of occurrences of personal reminisings, but that the literary text produced twice as many reminisings of experiences where the reader is an active participant in his/her mental imagery. The expository texts appeared to produce far more reminisings where the reader was playing a more passive, observer-type role.10 In the words of the authors:

Probably, the prototypical instance of remembering to most people is precisely their personally experienced autobiographical memories. The subcategory of a person’s knowledge of specific occurrences and facts that involve himself in some way may be considered the person’s empirical past. It is the knowledge he has of what he has done, who he knows, how they have reacted to him, where he has been, what events he has witnessed, what places he has lived in, and so forth (emphasis as original, 168-9).

In addition, Seilman and Larsen found that much of this imagery occurred at the beginning of the story rather than in the middle or at the end. The mobilisation of this knowledge need not result in conscious remembering (169). It would seem that it remains, for a large part, a subconscious process.11 In sum, based on this research two things may be posited: (i) that mental images of the

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10 As the authors state: the emphasis of this research was not on the number of reminisings but rather on their depth (169).
self during LRI are active or, in motion, and (ii) that LRI appear to be more prominent at the beginning of stories.\textsuperscript{12} The authors conclude that such personal resonances are a particularly important ingredient of ‘great’ literary experiences (167).\textsuperscript{13} The idea that the autobiographical memories of the reader play an important role in the literary reading process is also expressed in J. M. Black and C. M. Seifert’s (1985) experiment-led proposal that “good literature is that which maximizes reminding from the life of the reader”.\textsuperscript{14}

There are several other persuasive empirical arguments from the social sciences that the nature of mental imagery is likely to be indistinct rather than vivid. The psychologists Oatley and Jenkins note that “there is no evidence that people can remember scenes in perfect detail, and with perfect accuracy, as if they were stored in some internal video recording” (269). This echoes Bartlett’s observation that remembering “is an imaginative reconstruction, built out of the relation of our attitude towards a whole active mass of organized past reactions or experience, and to a little outstanding detail […] It is thus hardly ever really exact […] and it is not at all important that it should be so” (213).

Lawrence W. Barsalou’s theories on mental imagery and memory warrant a longer discussion. Several detailed empirical studies have suggested that the notion of activity is a dominant feature in the organisation of autobiographical memories and that activities act as cues for these dynamic memories (e.g. Reisner, Black and Abelson 1985). Barsalou (1988) expanded on this by investigating the content and organisation of autobiographical memories. This resulted in Barsalou’s ‘activity dominance hypothesis’, which states that event type form the dominant organisation of event memories (199). He also looked at the organisation of those events, and distinguished three activity-based categories: (i) location (e.g. going out in your hometown), (ii) participants (e.g. travelling by train with friends) and (iii) time (e.g. partying at Christmas). He found that subjects often recall several different events involving the same person (205). He conducted a number of experiments which produced mixed results. However, in one cued recall experiment he found that subjects generated more participants than any other type of cue (208).\textsuperscript{15} This participant and activity-dominant pattern, with some evidence for location too, has also been supported in subsequent experiments by other psychologists. For instance, in a recent presentation of their ongoing work Katinka Dijkstra and Mine Misirlisoy conducted tests as to the validity of the activity-dominance hypothesis.\textsuperscript{16} In an experiment on initial verbal reports of memory it was

\textsuperscript{11} As a kind of ‘aside’ they also sought to look at the age, vividness and importance of the source of the reminded experience in relation to both types of text: literary and expository (172). However, this was not discussed in any detail in the study apart from the cursory remark that the data “did not disclose any striking differences” (174).

\textsuperscript{12} It should be noted that this empirical study of emotive literary reading, like most of this type, unavoidably had several methodological drawbacks. First, there were just 20 subjects involved: ten in each reading experiment. Second, as the authors themselves admit in their discussion, there can be no guarantee that subjects correctly recalled the experience of which he/she was originally reminded. And third, I believe that asking students in classroom environments to read a literary text, mark the text while reading and immediately discuss the text and contexts of the marks with university professors and fill in a questionnaire arguably does not really represent a ‘natural’ literary reading environment, contrary to their own claim on page 170. I will say more about testing methodology in chapter four.

\textsuperscript{13} It is likely to be the case as well that mental images of the self are active while reading certain non-literary texts in specific contexts.

\textsuperscript{14} Also cited in Seilman and Larsen (169).

\textsuperscript{15} \textit{Activities} and \textit{location} were roughly equal in second place and \textit{time} was the least frequent of all by far.
shown that the activity and participant components dominate. In another experiment that tested for retrieval cues, these two were also found to be dominant, as was location. It was found that temporality appeared to play no meaningful role. The experimenters concluded that since the organisation of memories occurs around activities in interaction with the environment, namely participants and locations, this may lend support for an embodied account of cognition, as formulated in Barsalou’s theory of ‘Perceptual Symbol Systems’ (PSS) and in the work of the cognitive linguistics.\textsuperscript{17}

In similar experiments, Brewer (1987) has shown how remembering an event is often accompanied by mental imagery that can extend across a number of modalities including the sense of movement. Since this information must once have been apprehended physically in some past act of perception, the sense itself is central to the memory. Given the re-usability of such imagery, this may explain in part how people have stored what Brewer terms ‘perceptual generic knowledge’ of events. Barsalou, like others before him, suggests that events are often recalled in a fragmented way. He proposes that the reason for this might be that some exemplars in the memory, e.g. people, places, times or objects, get lost in event recall. This he defines under the headings ‘event fragmentation’ and ‘event confusion’.\textsuperscript{18} Writing on the relative instability of knowledge, Barsalou (1987, 1988) has argued that people continually construct representations from loosely organised generic and episodic knowledge to meet the constraints of particular contexts”.\textsuperscript{19} So even if the final product is different, it is nonetheless made up from the same familiar components.

More recently, Barsalou has developed a persuasively modern account of mental perception in his theory of perceptual symbols systems (1999), briefly mentioned above.\textsuperscript{20} This theory was developed in opposition to sign-fed theories on language and thought processing, such as those found in logic, statistics, and computer science. In his PSS theory Barsalou argues, as the empirical philosophers Locke and Hume had done before him, that perception and cognition share the same neural systems. As a result of this, cognitive processes are engaged immediately. During the act of seeing, certain ‘association areas’ in the brain capture bottom-up patterns of activation in sensory-motor areas. Later, association areas partially reactive sensory-motor areas to implement perceptual symbols. It seems that the storage and retrieval of these perceptual symbols operate at the level of what the author terms perceptual ‘components’. So perceptual experiences are stored in memory that later get activated (577). This process allows memories of the same component to cluster around a common ‘frame’: defined as an integrated system of perceptual symbols that is used to construct specific simulations of a category (590). All this leads to the implementation of a ‘simulator’, which can produce limitless simulations of the component. Hence, “related symbols become organized into a simulator that allows the cognitive system to construct specific simulations of an entity or event in its absence” (586).

It is important to note that perceptual symbols have a number of characteristics. Six of the most important of these are that they: (i) function unconsciously; (ii) reside at the neural level; (iii) are dynamic in nature; (iv) produce componental images rather than holistic ones; (v) produce simulators “that are always partial and sketchy, never complete (emphases in original);

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\textsuperscript{16} This research was presented at the 2005 conference for \textit{Text and Discourse Studies} held at the Vrije University, Amsterdam. Their talk was entitled “Discourse Dimensions in Autobiographical Memories of Younger and Older Adults”.

\textsuperscript{17} More will be said later about certain cognitive linguistic theories.

\textsuperscript{18} See Barsalou 1988a (230-2).

\textsuperscript{19} Also reported in Barsalou 1988a (236).

\textsuperscript{20} My synopsis here is very much based on this seminal article.
and (vi) are multimodal not just visual, including introspection (583-6). Barsalou explains further that mental images in his PSS theory are componential and sketchy because “as selective attention extracts perceptual symbols from perception, it never extracts all of the information that is potentially available. As a result, a frame is impoverished relative to the perceptions that produced it, as are the simulations constructed from it” (586). Drawing on Gestalt psychology, he also explains why simulations are likely to be biased and distorted and how they are grounded in both experiential and genetic components.

According to Barsalou, linguistic symbols operate like perceptual symbols in that they are schematic memories of a perceived event (spoken or written). More specifically he says:

As selective attention focuses on spoken or written words, schematic memories extracted from perceptual states become integrated into simulators that later produce simulations of these words in recognition, imagination and production. As simulators for words develop in memory, they become associated with simulators for the entries and events to which they refer. Whereas some simulators for words become linked to simulators for entire entries or events, others become linked to subregions and specializations. … Within the simulator for a concept, large numbers of simulators for words become associated with its various aspects to produce a semantic field that mirrors the underlying conceptual field … Once simulators for words become linked to simulators for concepts, they can control simulation. On recognizing a word the cognitive system activates the simulator for the associated concept to assimilate a possible referent. On parsing the sentences in a text, surface syntax provides instructions for building perceptual simulations (592).

A number of things become clear from this quotation, not least that PSS is not just about mental representations of prior experiences but also of imagination. It is the very schematicity of perceptual symbols that allows them to combine in creative ways and simulate imaginary images. This may sound strange, but children’s films, cartoons and books inexcusibly utilise this capacity to bend the laws of the physical world by mixing and matching all kinds of structurally similar objects for all kinds of functions. Sharing past experiences with others and planning together for the future involve imagination and conceptualisation as well. Although Barsalou makes no mention of it in his 1999 article, the reading of literary fiction demands a similar fluid capacity for simulation, creativity and imagination.

Writing on memory systems, Barsalou claims that working memory runs perceptual simulations (604). He adds:

The articulatory loop [Baddeley 1986] simulates language just heard or about to be spoken. The visual short-term buffer simulates visual experience just seen or currently imagined. The motor short-term buffer simulates movements just performed or about to be performed … Not only do these working memory systems operate during perception, movement and problem-solving, they can also be used to simulate these activities offline (604).

From a PSS perspective, short-term and long-term memory share neural systems with perception: long-term memory harbours the simulators while working memory implements specific simulations (604). Barsalou adds that “memory retrieval is another form of perceptual simulation, with fluent simulations producing attributions of remembrance” (605), and he describes how these simulations can either become active unconsciously, in implicit memory, or consciously, in explicit memory, and the process of retrieval itself:

As a memory is retrieved, it produces a simulation of the earlier event. As the simulation becomes active, it may differ somewhat from the original perception, perhaps because of less bottom-up constraint. To the extent that the remembered event’s features have become inaccessible, the simulator converges on its default simulation (605).
Barsalou’s idea that perceptual simulation underlies comprehension is persuasive, although it says nothing about the PSS nature of literary discourse processing and too little about the involvement of emotion: a topic that would seem to be of crucial importance to any contemporary model of the mind. This becomes evident if we recall Damasio’s claim that “virtually every image actually perceived or recalled is accompanied by some reaction from the apparatus of emotion”. 21 In a response to Barsalou’s article, Zwaan, Stanfield and Madden have suggested that PSS might be better suited to text processing situations in which readers already have much background knowledge pertaining to the subject matter. They add that it might be even better for explaining how people become immersed in narrative worlds: in short, how people read literature. 22

Barsalou’s basic PSS ideas — that abstract concepts and conceptual processing have perceptual, sensorimotor and embodied influences — share common ground with (i) the general philosophy of embodied cognition put forward by cognitive linguists, (ii) some of the ideas I discussed earlier on mirror neurons and (iii) Damasio’s notion of ‘convergence zones’. 23 In The Feeling of What Happens Damasio constructs a model for the basis of the ‘neuroanatomical autobiographical self’, based on his experiments and observations in experimental and clinical neuropsychology, physiology and anatomy. In this model, which brings together neural networks and mental images, he posits two specific locations: an image space and a dispositional space. In the image space, imagery of all sensory types occurs consciously and explicitly. The neural centres and patterns likely to be responsible for these images are located in the early sensory cortices of varied modalities (219). Dispositional space is the domain of unconscious, implicit knowledge. Here, images can be reconstructed and processed in recall. Movement can also be generated. Moreover, previously perceived memories are held here and similar images can be reconstructed. They can help as well in processing real images. Higher-order cortical neural areas as well as subcortical nuclei are thought to be the main centres involved. These dispositions are held in neuron assemblies, which Damasio terms ‘convergence zones’ (219). Damasio stresses that the true content of dispositions can never be directly known due to their unconscious state and dormant form and that dispositions are not words but abstract records of ‘potentialities’, which can fleetingly come to life, ‘Brigadoon-like’, as mental images before they wane again into imperceptibility (332).

This final comment completes this scientific overview of mental imagery. Next, I will consider the more literary and philosophical components of this topic. Several of these psychologists have been referring to conscious recall and explicit memory. In light of this, the premise can be put forward that if this kind of mental imagery is often imperfect, imaginative, emotional and inexact as is claimed, then subconscious recall, employing implicit memory, as must occur during LRI, is at least as fragmentary and incomplete if not more so. This is the premise that I will now take forward as we look at some evidence provided from the domains of literature and philosophy.

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21 The Feeling of what Happens (58)

22 This response is found at the end of Barsalou 1999 (636-7) in a short piece entitled “Perceptual Symbols in Language: Can an Empirical Case Be Made?”

23 Some of the links to cognitive linguistics can be seen, for example, in Ronald W. Langacker’s claim throughout his work on cognitive linguistics that grammar corresponds to conceptual structure (see, for example, his 1991 work). Others can be found, for instance, in Gibbs’s work on embodiment (2006). Both embodiment and cognitive grammar will feature in my cognitive stylistic analysis in chapter ten.
3.3 The literary-philosophy of mental imagery

In his work on psychology and the twentieth century novel Out of the Maelstrom, Keith M. May has argued in the context of his reading of Proust’s work, that “since memories are distorted, our self-images must be correspondingly inaccurate” (65). Following up on this in a discussion on subconscious recall, he states that “in a moment of involuntary memory the past is made to encroach upon the present so the subject fleetingly exists out of time. He cannot be deluding himself, because he has discovered this extra temporal dimension by accident, not through wishful thinking” (65). Echoing the basic precepts of Alhazen’s theory on perception he also makes a distinction between ‘the sense impressions of a thing’ and ‘the image that we form of it’ (65). May concludes by suggesting that the epiphany-like impressions of involuntary memory that Proust’s protagonist undergoes “precisely matched the sense-impression of childhood” (66). Bringing this phenomenon from the fictional world into the real world of the individual reader he concludes that “a succession of such moments would be the ideal psychoanalysis, the means to perfect self-understanding” (66).²⁴

Moving more centrally into the literary theoretical domain, Iser argues in The Act of Reading that there are ‘blanks’ in a literary text left by the author either consciously or subconsciously, and that these blanks “make the reader bring the story itself to life” (192).²⁵ It is these blanks, he argues, that ‘hinder’ the reading experience and general textual cohesion and in doing so they become “stimuli for acts of ideation […] what they suspend turns into a propellant for the reader’s imagination, making him supply what has been withheld” (194). He suggests that the shifting nature of the blanks in a text is responsible “for a sequence of colliding images” (203). Iser thought that these images influenced each other in the flow of reading:

The discarded image imprints itself on its successor, even though the latter is meant to resolve the deficiencies of the former. In this respect the images hang together in a sequence and it is by this sequence that the meaning of the text comes alive in the reader’s imagination (203).

This idea does not wholly correspond to the majority of observations by psychologists. Iser is echoing the philosophy of Edmund Husserl and here I momentarily part company with him. I agree that there appears to be a definite motion aspect to LRI but I wonder why reading should involve a whole sequence of differing images triggered by the content of the text. Recall that Stevenson’s fictive reader did not use Italian vistas to flesh out his Virgil but rather the scenes from his London childhood. If we were to follow Stevenson’s character for a moment, we would have to say that LRI is based on indistinct, semi-familiar locations, the essence of which gets repeatedly activated when reading a novel.²⁶ Iser also claims that “the structure of the text sets off a sequence of mental images which lead to the text translating itself into the reader’s consciousness” (38). This view of literary reading attributes a strong initial sign-fed aspect to reading, which can be observed in Iser’s choice of the phrase ‘sets off’. Although a ground-breaking claim in the 1970s, such an assertion seems one-sided from a twenty-first century

²⁴ May notes in his writing how Proust drew heavily on Bergson’s ideas of “the fluidity of inner experience” (66-7).

²⁵ He also refers to these blanks (Leerstellen) as functioning as a kind of pivot “on which the whole text-reader relationship revolves” (169). This is not a new idea, as Iser himself admits (108). Writing from the perspective of the implied author more than two hundred years earlier, and thinking about how far an author’s role can go in meaning making, the speaking voice in Laurence Sterne’s Tristram Shandy says that “the truest respect you can pay to the reader’s understanding, is to half this matter amicably, and leave him something to imagine” (Sterne 79).

²⁶ The subject matter of the work or the narrative mode may have an effect on how powerful the LRI is.
perspective. Far more interesting is what Iser writes in that same discussion: “the actual content of these mental images will be colored by the reader’s existing stock of experience, which acts as a referential background against which the unfamiliar can be conceived and processed” (38).

Iser’s *The Act of Reading* states that “the significance of the work, then, does not lie in the meaning sealed within a text but in the fact that the meaning brings out what had previously been sealed within us” (157). Can the same be extended to mental imagery? If we think about it for a moment, the only thing that can be ‘sealed within us’ is our own personal past, grounded in our own experience. Does literature bring out the indistinct images of our past, as some of the previously mentioned psychological theories have suggested? Iser notes further that as the reader’s conscious mind is activated by the textual stimulus “the remembered apparition returns as a background” (117). In essence, he claims that lexical and syntactic triggers in the text, and their stylistic arrangement, channel remembered apparitions, i.e. memory-based mental imagery, which is deployed as a backdrop. This might very well entail indistinct, i.e. ‘backgrounded’, representations of locations and places from an individual reader’s past. The idea of a location-based contextualisation of literature-induced mental imagery emerges as well in Iser’s associated claim that “if a reader is prodded into recalling something already sunk into memory, he will bring it back not in isolation but embedded in a particular context” (116). So when a word ‘prods’, or better still, subconsciously ‘channels’ the deployment of LRI, the imagery that is evoked may very well be grounded in the mentioned locations and places of our own personal pasts.

More recently, Elaine Scarry has argued in *Dreaming by the Book* for both the indistinct and dynamic nature of LRI. Although her work is literary-theoretical, she draws on the neuroscientific work of Kosslyn (1994). An important point of departure for her is that poems or novels are in fact a set of instructions for mental composition (224). She supports her claims for LRI with somewhat opaque observations such as “the imagination has a special expertise in producing two-dimensional gauzy images” (59), and that some images of persons induced by reading literature can be “gossamer” in nature (111).\(^{27}\) Drawing on the neuroscience of Kosslyn’s mental imagery she highlights the dynamism of such LRI by speaking of the cognitive phenomena of “mental skating” (211) and asserting that we “somatically mime the motion” (216). She speaks further of “radiant ignition”, which, she says, “helps make apprehensible the interior motion of fictional persons” (86). She adds, mental images tend to “float around” (92) and “flex and throb” (151); our mental composition of even a still picture has, she claims, “motion in it” (137).

Prior to these literary theoretical observations, the philosopher, Gaston Bachelard, had said that images evoked through reading are “hardly perceptible” (124). In his classic work *The Poetics of Space* (1958), Bachelard poses the question as to why it is that childhood locations, and especially the childhood home, should play such an important role when filling out mental models of new situations encountered while reading poetic language.\(^{28}\) Bachelard’s basic philosophical premise pertains to the mnemonic, image-based importance of familiar childhood locations that are evoked during the reading of poetic language in order to infuse the reading

\[^{27}\] Scarry argues as well against the indistinct nature of mental imagery when discussing small objects that are described in detail, like flowers. This is her “vivacity” claim (53). There is some supportive psychological evidence that smaller images tend to be more ‘filled in’ (see Kosslyn 1978). The images I am concerned with in my ideas on LRI are people and places, i.e. larger objects that do not fall into this vivacity category.

\[^{28}\] Bachelard’s account mainly focuses on intimate interior spaces that are concerned with the childhood home.
experience. He calls his work a study of ‘topophilia’, an investigation “to determine the human value of the sorts of space that may be grasped” (xxv). The work poses the essential question as to why it is that readers can access the mental imagery of familiar childhood locations through reading, even when those locations have long since been demolished or redeveloped. In essence, what he is asking is why and how it is the case that books can be portals to our pasts when engaged with in the optimum affective mode. Bachelard also discusses some felt physiological effects that may arise from reading: that the creation of mental imagery can make us feel a kind of poetic power rising within us, adding “after the original reverberation we are able to experience resonances, sentimental repercussions, reminders of our past” (xxiii). He adds, the state of poetic reverie “must always set the waves of the imagination radiating” (36).

Some of Bachelard’s other observations that are relevant for my work include the idea that in reading we comfort ourselves by reliving memories of protection (6). The reason we ‘encounter’ such childhood locations, like the house we were born in, is to re-participate in its original intimacy and warmth of the place where the protective beings lived. Blending the notion of the primary caregiver with that of the location of childhood memory, Bachelard terms this phenomenon “the maternal features of the house” (7). At the very first word that prompts the childhood home, at the very first poetic overture, the reader “leaves off reading and starts to think of some place in his own past” (14). These highly affective, locative childhood spaces, that must substantially influence the reading experience itself, are unequivocally and irrevocably blended with the notion of the parental protector or primary caregiver. According to Bachelard, these ‘values of intimacy’ are so absorbing that a reader ceases to read the description of the childhood locative space presented by the text. Instead, “he is already far off, listening to the recollections of a father or a grandmother, of a mother or a servant … in short, of the human being who dominates the corner of his most cherished memories” (14). Here then, the memory of the protector and the memory of the protective space meet and merge.

This final observation, which mirrors the mentioned visions of Stevenson’s reader, concludes my discussion on the nature of LRI. The combined body of the mentioned empirical and theoretical evidence from across the academic disciplines has gone some way towards providing a rationale for the following theoretical assumptions pertaining to LRI, which I shall now test in a number of basic experiments.

- While reading literature readers experience LRI
- LRI is indistinct/fragmented
- LRI involves movement/activity/dynamic scenes
- In that movement in LRI the reader is an active participant

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29 Bachelard’s examples chiefly focus on the language of poetry. It is my contention that his claims can readily be applied to the language of prose too.

30 This philosophical account, with its references to the truly embodied nature of metaphor and grammar, can be said to foreshadow many of the current claims in cognitive linguistics.

31 Such felt embodied phenomena are important and will be discussed in depth in a later chapter.

32 Of course, all of Bachelard’s ideas in The Poetics of Space are contingent on a non-traumatic childhood.

33 Bachelard also said that “the home of other days has become a great image of lost intimacy” (100).

34 This idea of a confluence of the locative childhood space and the maternal (i.e. primary caregiver) appears too in an earlier work entitled La Terre et les Rêveries de Repos, where, when discussing the reading of a poem by Milosz, Bachelard makes mention of a reading-induced mental construct “where the mother image and the house image are united” (cited in The Poetics of Space 45).
• LRI is linked to (idealised) childhood memories/images
• Aspects of our primary caregivers appear in LRI
• Childhood locations occur in LRI
• LRI will relate to specific incidents in a person’s life with emotional significance

The evidence of LRI might be grouped into three categories: (i) literary theoretical, i.e. the claims of Bachelard, Iser, Scarry, Hogan and May; (ii) literary discourse analytic, i.e. the empirical research evidence of Conway, Seilman and Larsen and Seifert and Black, and (iii) general psychological studies pertaining to the broader nature of mental imagery in event recall, i.e. Barsalou, Zull, Brewer and Dijkstra and Misirlisoy. In the following section I present and discuss the data from some very basic reader-response experiments. The purpose of this is not to find statistical proof — the numbers of subjects involved and the types of experiments are not set up for that purpose — but rather to look at the quality of some of the open responses and to search within them for where these views might show aspects of similarity with what has been suggested so far in this chapter.

3.4 Some LRI reader-response experiments
The tests below employ broad qualitative methods by means of a number of reader-response questionnaires. As has been previously explained, these responses, produced by tertiary-educated readers, are set out here first of all in order to sound out my own ideas and intuitions. They are not meant as empirical or statistical proofs. I carried out three different sets of reader-response experiments pertaining to the subject matter of this chapter. These were conducted over a three-year period with student subjects from four institutes of higher education in the Netherlands where I happened to be working at the time: the Vrije University Amsterdam (VU); Utrecht University (UU) and her two liberal arts and sciences honours colleges: University College Utrecht (UCU) and Roosevelt Academy, Middelburg (RA). The first experiment is very basic and only involves one group of UU student subjects. It pertains primarily to the notion ‘first memories’, i.e. what a subject’s earliest recollection of an event was and which three objects could the subjects recall from that early phase of their lives. The purpose of this was just to generate some response material: I wanted to know whether certain objects were more common than others. I also wanted to know what role, if any, people, places and activities played. The second experiment pertained to the vividness or indistinctness of LRI and was performed on a group of UCU students. The third experiment involved two groups of subjects from two different Dutch universities (VU and RA). It focused on a single question (number 14) from my own Novel Reading Questionnaire (NRQ), which will feature heavily in the following chapters of this thesis (see appendix). The question pertained to the nature and form of LRI. Below are the results of all three of these basic experiments followed by short discussions.

3.4.1 Experiment A: Earliest memories
This rudimentary experiment was conducted in 2002 on a group of twenty second-year undergraduate English majors who were studying at Utrecht University. They were all Dutch nationals and their average age was nineteen. They all attended my course, which was a rhetoric and stylistics approach to creative writing. The subjects were asked to provide open answers to two questions. I conducted this experiment at the very beginning of the semester while I was still unknown to the students, in order to try to minimise my effect on the group. I also embedded the two questions in a list of six. Four of these then were in effect ‘dummies’ that tried to draw
attention away from what I was doing. My first question asked the subjects to reflect for a moment and then write down what they believed their earliest memory to be. In the second question I asked them to recall three objects from their earliest childhood memories. I wanted to see if these first memories supported any of the evidence I have discussed in this chapter from across the sciences pertaining to LRI. Based on that evidence I made three predictions, of which the first was perhaps obvious, the other two less so. In parentheses are the names of the researchers whose work is either directly addressed by the statement or whose findings are associatively relevant

- 1. that the earliest memories of a childhood object would be related to the home: i.e. an object in the house or near it — (Bachelard)
- 2. that a sense of action or movement would be present in the recollection of that first event — (Scarry, Seilman and Larsen; Barsalou, Brewer, Dijkstra and Misirlisoy)
- 3. that these first memories would either involve a view of themselves playing or a view of themselves with a caregiver/parent/older sibling, i.e. a recognisable participant — (Bachelard, Hogan, Black and Seifert, Conway, Seilman and Larsen, Barsalou, Brewer, Dijkstra and Misirlisoy)

**Question 1**
The twenty responses about the earliest remembered event are listed below. I have numbered them 1-20 so that they can be referred to in subsequent lists without having to reproduce the responses again.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Moving house</td>
</tr>
<tr>
<td>2.</td>
<td>Being in hospital</td>
</tr>
<tr>
<td>3.</td>
<td>Looking up at someone sitting in a chair</td>
</tr>
<tr>
<td>4.</td>
<td>Being at home and noticing the colour of the furniture and wallpaper</td>
</tr>
<tr>
<td>5.</td>
<td>Being in a swing in the backyard</td>
</tr>
<tr>
<td>6.</td>
<td>Mum and dad telling me bedtime stories and singing songs</td>
</tr>
<tr>
<td>7.</td>
<td>Going to my grandparents’ house by train</td>
</tr>
<tr>
<td>8.</td>
<td>Riding my bicycle indoors and crashing</td>
</tr>
<tr>
<td>9.</td>
<td>Sitting in front of my mom on her bicycle</td>
</tr>
<tr>
<td>10.</td>
<td>Playing with toys with my mother</td>
</tr>
<tr>
<td>11.</td>
<td>Walking with my grandmother in the park</td>
</tr>
<tr>
<td>12.</td>
<td>Jumping into a swimming pool and yelling at my mother to look</td>
</tr>
<tr>
<td>13.</td>
<td>Being on a swing with my little brother in the garden being pushed by dad</td>
</tr>
<tr>
<td>14.</td>
<td>Me and my sister playing in a pile of courgettes that my father has just brought in from the garden</td>
</tr>
<tr>
<td>15.</td>
<td>Playing outside with my brother</td>
</tr>
<tr>
<td>16.</td>
<td>Running to my grandmother to ask for candy</td>
</tr>
<tr>
<td>17.</td>
<td>Playing on my bed</td>
</tr>
<tr>
<td>18.</td>
<td>Falling down the stairs and my parents being mad at me</td>
</tr>
</tbody>
</table>

35 These dummy questions pertained to pedagogical and methodological aspects of the creative writing course I was about to teach.

36 These responses are not reproduced verbatim here as they were quite long and in several cases quite rambling. For the benefit of the reader therefore, I have synopsised them in the clearest and fairest way I thought possible – attempting at all times to remain faithful to their claims.
19. Watching my mother vacuum cleaning
20. Falling asleep on my father’s chest and then waking as he put me in bed

Prediction 1: That the earliest memories of a childhood object would be related to the home: i.e. an object in the house or near it

Just eleven of the twenty responses (55%) appear to concur with my prediction. These were numbers: 1, 3, 4, 5, 8, 10, 13, 17, 18, 19 & 20. This very small majority was a surprise. The general tenet appears to question Bachelard’s claim.

Prediction 2: That a sense of action or movement would be present in the recollection of that first event

Fifteen of the twenty responses (75%) appear to concur with my prediction. These were numbers: 1, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 & 20. This percentage concurs with some of the claims made in the research of Scarry, Seilman and Larsen, Barsalou, Brewer, Dijkstra and Misirlisoy. Two of the thirteen responses can be said to be poorer examples: the two ‘moving house’ ones. However, by and large, the other thirteen give a palpable sense of the movement of the remembered child.

Prediction 3: That these first memories would either involve a view of themselves playing or a view of themselves with a caregiver/parent/older sibling, i.e. a recognisable participant

I have split into two parts the item ‘play and care-giving participant’ since the prediction appears to suggest two things

I. Playing
Eight of the twenty responses (40%) appear to concur with the first part of my prediction. Even though some do not mention the word ‘play’ they are quite clearly ludic events. These eight were numbers: 5, 8, 10, 12, 13, 14, 15 & 17.

II. Being in the presence of a parent/caregiver/older sibling
Fourteen of the twenty responses (70%) appear to concur with the second part of my prediction. The only real questionable one here is ‘looking up at someone sitting on a chair’. I take this in all likelihood to be a primary caregiver and/or family member. These fourteen were 3, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19 & 20.

III. Both
Five of the twenty responses (25%) appear to incorporate aspects of both playing and the presence of a caregiver or loved one. These were 10, 12, 13, 14 & 15.

There is some limited overlap with the theories of Bachelard, Hogan, Black and Seifert, Conway, Seilman and Larsen, Barsalou, Brewer, Dijkstra and Misirlisoy. Very few meaningful conclusions, however, can be drawn here. Looking at the data from this third prediction one can say that the notion of the child ‘at play’ is notable though far from overwhelming, while the child ‘in the presence of a caregiver, older sibling’ is strongly represented with 70% of all the
responses. There is no significant evidence that both of these criteria: ‘the child at play in the presence of a caregiver or loved one’ are present. Looking back at the actual written data, only one response did not fall into any of the three categories: “being in hospital”. This represents just 5% of the total responses. This means that 95% of all responses appear to concur with at least one of the predictions.

In sum, for my first prediction concerning recollections of objects in or near the house or parts of the house there appears to be limited evidence, because only slightly more than half of the responses agreed. With regard to my second prediction, there does indeed appear to be a significant amount of movement/action in the mental imagery of conscious recall of first memories. The ‘self’ is also often involved in swinging, riding, playing, walking, running, jumping, falling, etc. Here at least, these dynamic activities appear to be at the very heart of the earliest memories of these subjects when asked to recall their earliest memories of a childhood event. My third prediction in two parts has shown some limited correspondence with a number of existing psychological theories.

Question 2

In order to get a better insight into the nature of the earliest objects that these students remembered, I asked them to list three specific ones. There were nineteen responses to this question (one student failed to complete this question; further, two students did not write down three objects). In total therefore, there were just fifty-five objects mentioned instead of sixty. These were:

<table>
<thead>
<tr>
<th>Cuddly toy (8)</th>
<th>Dolly</th>
<th>Spoon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish tank</td>
<td>Wallpaper (2)</td>
<td>Curtains (2)</td>
</tr>
<tr>
<td>Old desk</td>
<td>Garden fence</td>
<td>Old storage box</td>
</tr>
<tr>
<td>Brown furniture</td>
<td>My bed (2)</td>
<td>Stairs (2)</td>
</tr>
<tr>
<td>Couch (4)</td>
<td>Playpen</td>
<td>Lamp</td>
</tr>
<tr>
<td>Toys</td>
<td>Piano (3)</td>
<td>Wardrobe</td>
</tr>
<tr>
<td>Swing (2)</td>
<td>Kitchen cupboard</td>
<td>Plant</td>
</tr>
<tr>
<td>Clock (2)</td>
<td>Bicycle (4)</td>
<td>Music box</td>
</tr>
<tr>
<td>Book read to child (2)</td>
<td>Floor covering (tiles)</td>
<td>Carpet</td>
</tr>
<tr>
<td>Tractor tyre</td>
<td>First pair of shoes (brown)</td>
<td>Photograph</td>
</tr>
<tr>
<td>Fireplace</td>
<td>Bookcase</td>
<td>Pillow (red, yellow and black)</td>
</tr>
</tbody>
</table>

One ‘western universal’ category that can be said to be of lesser interest here because of its predictability is the cuddly toy. I will thus exclude it. All other responses will be considered, including the ‘bicycle’, though it is a predictable Dutch object owing to the geographic make-up of The Netherlands.\(^{37}\) I will only discuss those objects that received more than one response. These were:

<table>
<thead>
<tr>
<th>Couch (4)</th>
<th>Bed (2)</th>
<th>Swing (2)</th>
<th>Clock (2)</th>
<th>Book read to a child (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piano (3)</td>
<td>Stairs (2)</td>
<td>Curtains (2)</td>
<td>Wallpaper (2)</td>
<td>Bicycle (4)</td>
</tr>
</tbody>
</table>

It can be noted that several of these objects have an inherent aspect of movement or action, be it explicit or implicit. These include the curtains, with their back and forth opening and closing movement, the swing, with its similar ebb and flow movement and, less explicitly, the stairs, with their implied action of an object ascending and descending them. The bicycle also clearly falls

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\(^{37}\) For example, this same question, posed to a group of students from a mountainous country rather than a flat one would no doubt produce quite different responses pertaining to bicycles as earliest memories.
into this action/movement category. These responses, which point back to question 2 listed above, show some more evidence for the theories of Scarry, Seilman and Larsen, Barsalou, Brewer and Dijkstra and Misirlisoy.

3.4.2 Experiment B: Vividness and indistinctness
In the spring semester of 2002 I put six written questions to eighteen second-year students taking another stylistics and rhetoric-driven creative writing course I was teaching at University College Utrecht. The students had backgrounds in the sciences, social sciences and humanities. They had mixed nationalities: one Polish, one Slovakian, one Nigerian, one Italian, four American and ten Dutch. In total there were eleven females and seven males. I gave them thirty minutes to answer the questions (approximately 5 minutes for each), which involved a simple yes/no part and, most importantly of all, a space to elaborate should a student wish to do so. I again attempted to give the test as early as possible in the semester so that these students, whom I had not previously taught, might complete the test without having been exposed too much to my own explicit and implicit pedagogical views and expectations. Almost unavoidably, like the questions highlighted in the previous experiment, these too are “loaded” to some greater or lesser extent, as arguably all questions must be.

The questions were:

- 1. Are you an avid reader of literature?
- 2. When you read literature do you experience mental imagery?
- 3. If so, does that imagery differ from film imagery?
- 4. Do you think that memories of your childhood have something to do with this literary imagery?
- 5. Do your childhood locations appear in your mental imagery?
- 6. Do you think that literary reading has anything to do with spirituality?

Based on these questions I made five predictions pertaining to questions 2-6. Some of these questions are more relevant than others. Questions 2, 4 and 5 are the most significant for this study. Question 3 is relevant too, as I was trying to indirectly access responses pertaining to either the clarity or indistinct nature of LRI. Question 1 is not much more than a filler question. Question 6 is not relevant here but will be for a later discussion in chapter eleven. Our focus therefore is on the responses to questions 2, 4 and 5 but also to question 3. Below are five propositions. Beneath them in parentheses are the names of the scholars to whose theories the propositions loosely equate.

- 2. LRI is produced while reading literature
  o (Iser, Zull)

- 3. LRI differs significantly from the imagery experienced in a film or on TV
  o (Iser – and less directly the ideas of Bachelard, Scarry, Seilman and Larsen, Barsalou, Dijkstra and Misirlisoy)

- 4. A link will be observed between childhood memories and LRI
  o (Bachelard, and to a lesser extent Hogan, Conway, Seilman and Larsen and Seifert and Black, Barsalou, Zull, Dijkstra and Misirlisoy)
5. Childhood locations will appear in LRI
   (Bachelard and to a much lesser (associative) extent Hogan, Conway, Seilman and Larsen and Seifert and Black, Barsalou, Zull, Dijkstra and Misirlisoy)

6. Literary reading is linked to spirituality

**Question 1:** *Are you an avid reader of literature?*

Yes = 15 / No = 1

This was a general opening (filler) question to see whether the subjects considered themselves avid readers. It seems I was dealing with readers who perceived themselves as such.

**Question 2:** *When you read literature do you experience mental imagery?*

Yes = 18 / No = 0

This response concurs with my proposition that *LRI is produced while reading literature.* It also ties in directly with the literary theoretical ideas of Lser and, at a more associative level, with the neuroscientific ones of Zull.

Nine students had added the following optional comments:

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Especially descriptions of setting become vivid</td>
</tr>
<tr>
<td>2.</td>
<td>In the sense that I sort of imagine what the people look like or where they are. Not incredibly detailed though</td>
</tr>
<tr>
<td>3.</td>
<td>When I don’t I think it is a bad book. Also when I reread a book without knowing I’ve read it before the mental imagery will be familiar where I have forgotten the storyline, title or characters</td>
</tr>
<tr>
<td>4.</td>
<td>It is more imagery like a feeling of faces and surroundings</td>
</tr>
<tr>
<td>5.</td>
<td>Very strongly especially when it’s good writing</td>
</tr>
<tr>
<td>6.</td>
<td>I frequently have intense mental images with literary works. Quite often I find the dialogue provokes the most images for me, scenery and the like usually don’t give a vivid image</td>
</tr>
<tr>
<td>7.</td>
<td>Descriptions that I read become ‘pictures’</td>
</tr>
<tr>
<td>8.</td>
<td>However, it often happens that it is an image very distantly related to the story, so it’s often based on one expression (word)</td>
</tr>
<tr>
<td>9.</td>
<td>I think I automatically do. Literature is more than words. Right? Mental imagery is an essential part of the connection a reader makes with a text, I think</td>
</tr>
</tbody>
</table>

Interestingly, it can be seen from the data that there seemed to be a split at this stage as to whether this imagery was indistinct or vivid. Indistinct claims included 2, 4 and 6 and were best represented by the observations “in the sense that I sort of imagine what the people look like or where they are. Not incredibly detailed though” and also “it is more imagery like a feeling of

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38 All responses below are verbatim and in random order.

39 Two students, who have not been counted here, wrote instead that they mostly read non-fiction.
faces and surroundings”. This second response expresses distinct emotive and somatic aspects of perception in LRI. These issues will be looked at more closely in the question below.

**Question 3:** *If so, does that imagery differ from film imagery?*

Yes = 17 / No = 0\(^{40}\)

This complies with my somewhat self-evident prediction that *LRI differs significantly from the imagery experienced in a film or on TV*. This also directly supports the ideas of Iser and less directly the more general propositions pertaining to mental imagery of Bachelard, Scarry, Seilman and Larsen, Barsalou and Dijkstra and Misirlisoy.

Fourteen students had added the following optional comments.

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<tbody>
<tr>
<td>1.</td>
<td>Not as explicit: I think most mental imagery is “unpronounced”, underdeveloped, undefined in the sense that it is a process that mostly takes place subconsciously. On a screen, there is a thought-out picture, without “gaps”. Text allows for more subtlety (esp. in detail) and symbolism</td>
</tr>
<tr>
<td>2.</td>
<td>Often includes myself, which I don’t really get in film</td>
</tr>
<tr>
<td>3.</td>
<td>It is less clear, the image is not that sharp because a description always misses some pieces that a ‘picture’ does include</td>
</tr>
<tr>
<td>4.</td>
<td>Film imagery usually evokes emotion in me rather than a full mental image. They usually don’t stick very long either, while book induced images can come back very often</td>
</tr>
<tr>
<td>5.</td>
<td>Usually somewhat more hazy; the action or description is very clear, background is harder to define.</td>
</tr>
<tr>
<td>6.</td>
<td>Mental imagery can change faster and is more personal</td>
</tr>
<tr>
<td>7.</td>
<td>Very much so. It is less complete and therefore more interesting</td>
</tr>
<tr>
<td>8.</td>
<td>Yes, but the more films I see the more I imagine things that way. If it is a movie from a book and I read the book after, I picture the book like the movie</td>
</tr>
<tr>
<td>9.</td>
<td>No background music</td>
</tr>
<tr>
<td>10.</td>
<td>More fragmentary</td>
</tr>
<tr>
<td>11.</td>
<td>You choose literary imagery, film imagery is the director’s choice</td>
</tr>
<tr>
<td>12.</td>
<td>The difference between film and literary imagery is the difference between film and literary thoughts and feelings. In film they have to be very clearer even spoken, while in literature you can easily hint at them with some well-chosen words. Often film misses the subtlety literature can have</td>
</tr>
<tr>
<td>13.</td>
<td>Sometimes it is like film imagery. And sometimes after I’ve seen a movie before reading it, I’m kind of ‘biased’ when I get to read it in the end</td>
</tr>
<tr>
<td>14.</td>
<td>It depends on what the imagery is. There are times where I imagine some things that I read and view a movie that shows completely different depictions from what I imagined</td>
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</table>

With regard to the open responses, a number of observations can be made. First, the claim that LRI is more indistinct than TV or film imagery can be observed in a significant number of responses. These include 1, 3, 5, 7, 10 & 12. Second, an image of the self is also often seen in LRI. Interesting responses that pertain to this include 2 and 6. Such observations comply with Seilman and Larsen’s personal resonance theory and perhaps too with Black and Seifert’s ideas that good literature maximises reminders from the life of the reader. Other, more general yet interesting responses include “you choose literary imagery; film imagery is the director’s choice” and “there are times where I imagine some things that I read and view a movie that shows completely different depictions from what I imagined”. Finally, the longevity and repetitive nature of LRI was alluded to in response number four: “book induced images can come back very

\(^{40}\) One student had scribbled out both options and had written the word ‘sometimes’.
often”. This idea echoes Bartlett’s claim with respect to his empirical study of reading processes that memories tend to produce “stereotyped and conventional” reproductions even though they may be unfaithful to their originals.

**Question 4:** *Do you think that memories of your childhood have something to do with this literary imagery?*

Yes = 11 / No = 7

Even though a larger percentage thought this to be the case, a significant percentage disagreed. One can say that my prediction that *a link will be observed between childhood memories and LRI*, which was based on the ideas of Bachelard, and to a lesser extent those of Hogan, Conway, Selman and Larsen and Seifert and Black, Barsalou, Zull, Dijkstra and Misirlisoy, was not significantly upheld.

Ten students had added the following optional comments:

<p>| | |</p>
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<tbody>
<tr>
<td>1.</td>
<td>Many memories are etched in someone’s mind beginning in childhood. When one reads literature it is very common to picture these images that are made early in life</td>
</tr>
<tr>
<td>2.</td>
<td>It usually has to do with the book not external images generated in childhood</td>
</tr>
<tr>
<td>3.</td>
<td>Not that I would have ever realized</td>
</tr>
<tr>
<td>4.</td>
<td>Memory plays a role in making the picture</td>
</tr>
<tr>
<td>5.</td>
<td>Sometimes, not often</td>
</tr>
<tr>
<td>6.</td>
<td>To some extent yes, but not predominantly</td>
</tr>
<tr>
<td>7.</td>
<td>It gives you a basis for your imagination</td>
</tr>
<tr>
<td>8.</td>
<td>Your childhood shaped you, made you into what you are now. You could say almost all you think has to do with your childhood, so it’s only logical that it also shapes the way you read</td>
</tr>
<tr>
<td>9.</td>
<td>I think that books that I read when I was little have an influence on how I imagine what I read now</td>
</tr>
<tr>
<td>10.</td>
<td>From life, not specifically from childhood. I often subconsciously form imagery that resembles familiar places/faces/images, and especially how they feel/felt if that makes any sense. I only realise this (the use of familiar image) when the text or the film made after it for that matter conflicts with what I had in mind. I want to stress it has as much to do with feelings connected to places/people, as the usual images</td>
</tr>
</tbody>
</table>

The responses are mixed. Several reject my proposition out of hand, for example, responses 2 and 3, while others seem not to: these include 1, 4, 7 and 8. One intriguing response, which I will return to later, was “many memories are etched in someone’s mind beginning in childhood. When one reads literature it is very common to picture these images that are made early in life.” Response number 10 is interesting as well as it seems to agree with almost everything that has been discussed in this chapter on the nature of LRI with the one significant exception that it is not specifically from childhood but from other significant moments in a person’s life as well.

**Question 5** *Do your childhood locations appear in your mental imagery?*

Yes = 10 / No = 8
Even though more than 50% were in the affirmative, this result was not what I predicted. Hence my proposition that childhood locations will appear in LRI has been rejected as has the theory of Bachelard and also those of Hogan, Conway, Seilman and Larsen and Seifert and Black, Barsalou, Zull, Dijkstra and Misirlisoy.

Eight students had added optional comments.

<table>
<thead>
<tr>
<th>Number</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Depends on the context and its similarity to what I’m reading</td>
</tr>
<tr>
<td>2.</td>
<td>But not only physical locations also things you read or heard about as a child</td>
</tr>
<tr>
<td>3.</td>
<td>It happens but mostly inside locations (I grew up in Amsterdam, so I did not really spend a lot of time playing on the street)</td>
</tr>
<tr>
<td>4.</td>
<td>Sometimes places where I’ve been play a role</td>
</tr>
<tr>
<td>5.</td>
<td>If they do, they would be outside</td>
</tr>
<tr>
<td>6.</td>
<td>Reconfigured imagery, pieces of things, but not direct transfer</td>
</tr>
<tr>
<td>7.</td>
<td>Not specifically from childhood. Locations are more prominent than people, situations</td>
</tr>
<tr>
<td>8.</td>
<td>Homes, schools, nature and forests I have seen</td>
</tr>
</tbody>
</table>

Unexpectedly, some of the qualitative data is quite rich. Responses in support of my prediction include 2, 3, 4, 6, and 8. Some of these are of qualitative significance. Response 3 with its focus on inside locations provides some evidence for Bachelard’s ‘interior’ claim; response 6 reinforces the idea of indistinct LRI pertaining to childhood locations; and response 8 with its schools and home mirrors parts of the LRI-induced reflection that we saw at the beginning of this chapter experienced by Stevenson’s marooned reader. Other less affirmative responses also warrant some discussion. These include response 5 which goes against Bachelard’s ‘interior’ claim and response 7 which, in highlighting location, argues against Barsalou’s (and Dijkstra and Misirlisoy’s) ideas on the dominance of activity and participants in mental imagery. Response number 7 is interesting as well: in stating “not specifically from childhood” it is echoing a similar response from the previous question.

**Question 6**

Do you think that literary reading has anything to do with spirituality?

Yes = 9 / No = 4

This final question is quite different from the rest. I posed it for a later chapter where the final discussion will come together. I will therefore only reproduce the responses here without any additional discussion. My proposition was that *literary reading is linked to spirituality*

8 students had added optional comments:

<table>
<thead>
<tr>
<th>Number</th>
<th>Comment</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>I believe it does but all spiritual moments I ever had were restrained to moments when I was reading.</td>
</tr>
<tr>
<td>2.</td>
<td>What you believe shapes how you see things</td>
</tr>
<tr>
<td>3.</td>
<td>Yes, mental imagery and spirituality are both really personal and both mental. Somebody’s spiritual life influences mental images</td>
</tr>
<tr>
<td>5.</td>
<td>Your interpretation of the characters and their actors has a lot to do with it</td>
</tr>
<tr>
<td>6.</td>
<td>For the most part, when one is spiritual, it seems that an individual seems to relate more to literary images than someone who is not spiritual. The spirituality I am referring to is the level in which someone can be in touch with their emotions themselves and senses</td>
</tr>
</tbody>
</table>

41 Two wrote “it depends”, one wrote “could be” and two did not respond at all.
7.  Yes, I sometimes get spiritual experiences when a book is very captivating
8.  Depends on the content of the book

In conclusion, some of the data to these questions are interesting. However, it should not be
forgotten that the way I posed the questions will have affected the way students responded even
though, as reported, these responses were given (i) anonymously, (ii) while I was out of the
classroom, and (iii) early in the course, i.e. before they knew what my own ideas were. Taken as a
whole, these preliminary results can be said to broadly favour some of my conjectures especially
those pertaining to the indistinct nature of LRI, and that LRI appear during reading (questions 2
and 3). They also appear to confirm several of the theories and research studies presented earlier
in this chapter from across the disciplines. However, distinctly grey areas are starting to emerge,
especially with regard to my claims on the notion of childhood memories in general and locations
from childhood in LRI. Notwithstanding, the richness of some of the qualitative data in those
very mixed responses to questions 4 and 5 has encouraged me to continue with this line of
questioning in a third experiment: this time with twice the number of subjects from two different
higher educational institutions.

3.4.3  Experiment C: Vividness and indistinctness revisited
The third and final experiment in this chapter is a question in three parts from my Novel Reading
Questionnaire (NRQ). As it focuses on just one question from that questionnaire: number 14. The
testing, conducted in 2004, was the most recent of all the studies in this chapter and involved the
largest number of subjects: thirty-six. Though these numbers are a welcome improvement,
doubling the total from the previous experiment, they are still not large enough from a
quantitative empirical point of view to draw any concrete statistical conclusions. Once again
therefore, I shall focus on the qualitative data rather than the simple yes/no responses, which are
in any event of limited methodological worth. Of the thirty-six students who responded by
completing the questionnaire twenty-seven were from the Vrije University Amsterdam
(henceforth, VU) and nine were from the Roosevelt Academy in Middelburg (henceforth, RA).
All of the subjects were undergraduates working towards various BA degrees. In contrast to the
previous two experiments, not all of the subjects were from my classes. Rather, the questionnaires
were distributed to subjects by e-mail in the case of the VU students, and via colleagues in the
case of RA students. This added an aspect of randomness to the responses, which helped counter
some of the methodological weakness of the experiment: so too perhaps was the fact that students
were not paid for their services but took part on a voluntary basis. In the case of the VU group an
e-mail was sent to all students in three humanities departments: literature, cultural studies and
communication and information studies. There were approximately 150 students on those mailing
lists from all year levels; the response rate (twenty-seven subjects) was approx. 18%. I took a
completely different approach at RA. All subjects were first-year students in the first month of
their first semester taking a course entitled ‘Great Literary Works’. All subject were taking a
liberal arts and sciences degree and were going to major either in the humanities, the social
sciences or the sciences. Participation in the experiment was again optional. One thing perhaps
worth noting at this stage is that while the VU students were approached to fill in this NRQ in
their own time during the summer of 2004, the RA students were approached immediately after

As stated earlier, this is a list of fifteen mainly open questions pertaining to literary reading experiences
(see appendix). The most important methodological points of the LRQ were explained in the introduction
to this work. I will just refresh some of those points here.

The results of the other questions will be presented and discussed in subsequent chapters.
having read *The Great Gatsby* for a class assignment in September 2004, and had approximately two weeks.\(^{44}\) Also, whereas all twenty-seven students from the VU were arts and humanities students, and thus all had some affinity and experience with literary reading, only four of the nine RA students who took part were: the others were scientists.\(^{45}\)

The three parts of question 14 and my predictions are listed below. Once again, I have included, in parentheses, the theories of the scholars that are either directly relevant or associatively so.

- **A.** When you read can you readily visualise the persons and places described in a novel or short story?
  - (Iser, Zull)

- **B.** Do those persons and places more often than not appear clearly in your mind or are those images more often than not indistinct?
  - (Iser – and less directly the ideas of Bachelard, Scarry, Seilman and Larsen, Barsalou, Dijkstra and Misirlisoy)

- **C.** Since you have never physically seen these fictional settings and characters before, what and who is it then that you actually see? - And also, where are those locations and settings, i.e. where/what are they based on? (Please expand on these two central questions below. Please also try not to think of a book that you first saw as a TV adaptation or as a film in the cinema. Instead, choose a book which you read without the aid of Hollywood imagery).\(^{46}\)
  - (Bachelard and to a much lesser (associative) extent Hogan, Conway, Seilman and Larsen and Seifert and Black, Barsalou, Zull, Dijkstra and Misirlisoy)

My predictions, based on my own self-observations and self-experience as well as the many scientific and humanities theories discussed in this chapter, were as follows:

- Part A = affirmative
- Part B = indistinct
- Part C = childhood locations and primary caregivers will be prominent

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\(^{44}\) The final question in the NRQ (question # 15) pertains exclusively to the reading of this novel and especially to the reading of its closing paragraphs. Chapter nine will be devoted to looking closely at the results of this case study.

\(^{45}\) While the blending of two such different data collection systems in the same experiment might be problematic in statistical surveys, for my main goal, namely the acquisition of as much written qualitative feedback as possible, this system is beneficial. To address the main issue of my methodological choices here, ideally, if one were to go in search of pure, statistical, quantitative evidence in reader responses, then one should draw up rating scale response formats on a range of say of 1-7 and conduct testing under strictly controlled conditions and also do testing on control groups. The results of such formats would put forward sound statistical arguments of probability and so help reduce the inductive leap needed to accept the argument being put forward. However, the kind of responses I am looking at, at this stage of my research, go beyond numbers. It is qualitative feedback that I am interested in: detailed, in-depth, real responses.

\(^{46}\) In hindsight, the term Hollywood is restrictive and leading. ‘Film’ would have been much better.
Part A. When you read, can you readily visualise the persons and places described in a novel or short story?

I purposely used the expression ‘readily visualise’ to refer to whether or not mental imagery occurs and to avoid leading terms at this stage like ‘vividness’ and ‘indistinctness’. My prediction with regard to this very general first question was that most students would answer affirmatively.

- VU Yes = 23 No = 4
- RA Yes = 9 No = 0
- Total Yes = 32 No = 4

This concurs with my predication and lends weight to the claims of Iser, and, less so, of Zull.

Part B. Do those persons and places more often than not appear clearly in your mind or are those images more often than not indistinct?

By using the both terms ‘clearly’ and ‘indistinct’ I hoped to achieve some methodological balance in the question. My prediction was that most students would choose the ‘indistinct’ option thus supporting the direct and associative claims of Iser, Bachelard, Scarry, Sefulman and Larsen, Barsalou, Dijkstra and Misirlisoy

- VU Clear = 11 Indistinct = 16
- RA Clear = 7 Indistinct = 2
- Total Clear = 18 Indistinct = 18

This equal result rejects my prediction. It queries as well the direct and associative research of the above-mentioned scholars and scientists. This result also questions some of the results and assumptions from questions 2 and 3 of the previous experiment, which appeared to favour an indistinct option in LRI. It will be noticed, however, that the results from the two institutions are mixed. The ones from the larger group of VU students broadly concur with my prediction, while the smaller RA group result clearly rejects it. There are some structural reasons that might help account for this. What might have affected the RA result was that all students in that group were in the first month of their academic lives. A further reason is that whereas all of the VU students were humanities majors, of whom it would be perhaps expected that they read literature regularly, less than half of the RA students were humanities majors. The majority of students in the RA group were science students (four social science majors and one life science major). These reasons, however, do not explain fully the nature of the RA responses, or, indeed, the overall result, and cannot soften the clear rejection of my proposition.
Part C. Since you have never physically seen these fictional settings and characters before, what and who is it then that you actually see? And also, where are those locations and settings, i.e. where/what are they based on? (Please expand on these two central questions below. Please also try not to think of a book that you first saw as a TV adaptation or as a film in the cinema. Instead, choose a book which you read without the aid of Hollywood imagery).

In the third question, which I deem to be the most significant of the three because of its far more open nature, I predicted that those childhood locations and primary caregivers will be prominent. This maps with the explicit claims of Bachelard and to a much lesser, associative, extent to the work of Hogan, Conway, Seilman and Larsen and Seifert and Black, Barsalou, Zull, Dijkstra and Misirlisosy. This third question could not be answered with a simple yes/no and therefore I do not know how many of the thirty-six subjects explicitly agreed or disagreed. More important was that many open responses were given, some of which contained rich qualitative data.

1. I think that the images I make in my mind are a mix of things I remember in life. It is not that I really recognize them, but I think that this is the way the mind works. I make images I want to see and to make them I must have seen them or things that look like it or a combination of things I have experienced in life

2. The surroundings are normally based on places I have been to, especially in American and British novels, because I would kind of know what it would have to look like. It totally depends on the books where these settings are of course. But mostly, if the setting would be American, I would base it on the way my home town looked when I lived there. e.g. I just read a Japanese book and the houses and alleys looked a bit American in my imagination

3. Normally when reading a novel I only have a vague impression of how a character is supposed to look. The name for instance would call up a vague impression of colours, mostly. I tend to get the details wrong too. (For example, until seeing the Harry Potter film I was absolutely convinced that Draco Malfoy’s hair colour was dark, like Harry’s. After seeing the film, I went back to the text and found evidence that his hair really was fair all along, I just missed it)

4. I never see anything while reading. Reading for me is more abstract than that. I feel, I know and I feel close to the places and persons in the book but they never mature into something physical, just an abstract experience of the narrative and the story

5. If I read something that reminds me of something in my childhood for example that theme gets evoked in my head

6. They are probably made up of characters and body parts of people I know. Similarly, locations are probably based on places I’ve been before or I have seen before in a picture or something. I think that it is impossible to not recall places or people you know or you have seen while reading literature. That is your field of reference, your experience. I should also say that I never actually see the exact faces, probably just the silhouette. Perhaps this sounds a bit far-fetched but it is almost like those pointillist paintings, where you cannot immediately see what is in the picture. You just see little parts

7. I think that in visualising we tend to put emphasis on that which is known and familiar to us, both people-wise and location-wise. What we see is a mix of memories and internal knowledge about

47 The responses here have been represented verbatim as far as was possible. However, they have been reduced where comments were deemed irrelevant or rambling: the spelling has also been corrected. Further, the non-native, idiosyncratic nature of several of the statements has been retained for the sake of authenticity, even if this may hinder the reading/comprehension process. Moreover, what I thought to be inappropriate, off-topic, responses have not been produced. Further, the responses have been numbered in a random fashion so that they can be referred to in the discussion section without having to reproduce the whole response. Henceforth, this pragmatic procedure will be repeated in all chapters throughout this thesis where response data to the NRQ is produced for discussion.
certain places and types of people

8. The location and setting might have something to do with the place from my childhood, but that’s all very subconscious … when I think of a lake, I always see the same lake, unless the author describes it in detail

9. Sometimes I see people who are similar to somebody I know

10. I often find that when I am reading a book where people are in a certain house I actually visualise a house where I have been before, but with a lot of alterations. I’ve got the same thing with people and landscapes, the whole visual image is actually made up out of several pieces of people and places I’ve seen

11. I think I take the description an author gives of a character and the scenery and then I combine that with people and places I know myself that fit into the picture to make the picture complete

12. It is like dreaming, when you think you see the same thing. When you look back on dreams you see that persons and locations are composed of multiple parts. When I was younger I remember that most books I read were based in my house

13. When the passage describes something that is familiar to you because you have experienced it in your childhood, you will go back to this when you need it in the novel, even if it is not specifically about your childhood in the story/ passage

14. I always picture the houses of friends or family when I read about houses in novels, which for me is the most peculiar thing. Also I have no idea as to why with certain novels I also picture our old house we used to live in and with others the flat my father used to live in and even sometimes my grandmother’s house. I think that it is based on the descriptions from the text but I can’t pinpoint what exactly

15. Location and setting: very often any house or domestic setting becomes my grandmother’s house and/or neighbourhood. Sometimes this mental image is so strong that I can’t change it even though the novel gives clear description of locations and settings. If it doesn’t fit into the picture I have of it, I will soon forget and need constant reminders (if it is something that is important somehow and recurs often). However, I will not adjust my mental image

16. Fictional characters: usually remain indistinct. I know what they look like but I could not really describe them if I had to I think. If the novel turns into a movie this can sometimes collide: the character and his/her appearance are not what I imagined them to be

Some of these responses are significant for my prediction that childhood locations and primary caregivers will be prominent based on the studies of the scholars and scientists listed above. These include numbers 5, 6, 7, 8, 10, 12, 13, 14, 15 and 16 and might be best summed up with the comment from response number 7 that “I think that in visualising we tend to put emphasis on that which is known and familiar to us, both people-wise and location-wise”. Response 14 is representative as well: “I always picture the houses of friends or family when I read about houses in novels”, and he/she continues, “I have no idea as to why with certain novels I also picture our old house we used to live in and with others the flat my father used to live in and even sometimes my grandmother’s house”.

In addition to these responses, which appeared to clearly confirm my prediction, there were other interesting ones. These include number 2 that, like a previous response, seems to echo an aspect of what Stevenson’s character felt when he read Virgil, described at the beginning of this chapter. This subject respondent, seemingly raised in the USA, observed that even though he/she had just read a Japanese novel “the houses and alleys looked a bit American in my imagination”. Was he/she perhaps doing what Bartlett has predicted, as we have seen in an earlier response: showing that memories tend to produce “stereotyped and conventional representations” even though they may be unfaithful to their originals? The suggestion is plausible. Another intriguing response was number 3, which serves as support for another of Bartlett’s claims discussed in an earlier chapter that we bring our personal and cultural expectations to a text that are so strong that they will override the actual textual detail. This is a main claim of schema theory too. In this case, the writer referred to, J.K Rowling, has chosen to go against strong
cultural conventions, i.e. that a wicked character in a book about a struggle between good and evil should have dark hair in a western cultural framework, not light. The author, of course, may have played with this convention purposely. In any event, the reader who responded ‘read over’ this; such was the strength of his/her culturally-driven, mental expectations and LRI. Another interesting observation was made in response 6 that LRI is like a pointillistic painting. This lends weight to the indistinct claims of LRI including Iser’s claims of ‘optical poverty’ and is all summed up in response 16 that “fictional characters usually remain indistinct”. Response 6 also made the somewhat macabre, yet plausible, observation that characters in novels are made up of “the body parts” of people whom the reader knows. This same idea was echoed in response 12 that referred to persons and places being composed of “multiple parts”.

Are these then a quite literal interpretation of the ‘fragmentary memories’ that fill the imagination when reading of which Hogan spoke earlier? In sum, the overriding idea that memories and LRI are not vivid was locatable in much of the feedback including the very first respondent who claimed that the images he/she made in his/her mind “are a mix of things I remember in life. It is not that I really recognize them, but I think that this is the way the mind works”. Such ‘gossamer’ reflections, to use Scarry’s term, are persuasive. Response 6 also implicitly refers to a theme that has come up in previous experiments when he/she says that LRI locations are probably based on places he/she has been before or has seen images of. One could deduce from this that he/she is not just speaking of childhood as this is not explicitly mentioned. Having highlighted all this, it should be noted too that a few responses clearly rejected my prediction. This might be best summed up by response number 4 who claimed that he/she “never sees anything while reading”.

3.5 Brief summary and discussion of the theories and experiments in the chapter
At the beginning of this chapter I proposed that since our childhood memories — i.e. the important places and people from our personal pasts — are the most emotive and most enduring kind, they are most prone to activation while reading literature in order to flesh out all kinds of situations in novels. We can now review this LRI hypothesis based on the rudimentary testing I conducted, which in turn found its inspiration in a number of theoretical and empirical studies that either directly impinged on my hypothesis or were of associative worth to it. This might best be done by reviewing the eight general statements I set out before the testing was discussed as these cover the most import aspects of the questions from the three experiments. Below each statement in parenthesis I will draw a brief and provisional conclusion.

- While reading literature readers experience LRI
  - (confirmed)
- LRI is indistinct/fragmented
  - (largely confirmed)
- LRI involves movement/activity/dynamic scenes
  - (highly plausible)
- In that movement in LRI the reader is an active participant
  - (highly plausible)
- LRI is linked to (idealised) childhood memories/images
  - (unconfirmed)
- Aspects of our primary caregivers appear in LRI
  - (unconfirmed)
- Childhood locations occur in LRI
  - (unconfirmed)
• LRI will relate to specific incidents in a person’s life with emotional significance
  o (unconfirmed)

In light of the above, a repositioning is necessary. Thus far I have emphasised exclusively that LRI is based on events, locations and participants from a reader’s childhood. Although I have found some convincing qualitative evidence for this, I think that in light of some of the contradictory qualitative data I need to provisionally review this standpoint. I will now assume that even though much of the emotive content of LRI is based on events, locations and participants from a reader’s childhood, other imagery can be evoked too from important events that took place later in a reader’s life.

Now that my discussion on the nature of LRI is concluded, we can return to the beginning of this chapter to address a question posed there, namely, why it is that while reading Virgil Stevenson’s character saw locations and primary caregivers from his own personal English childhood rather than Italian vistas. In light of this chapter, my explanation is not that the author has conjured up some literary fancy, rather, I believe that Stevenson, like many accomplished authors, was drawing on his own experience as a reader, and in doing so was touching on something that many readers of literature appear to share, to a greater or lesser extent. This is an innate ability to produce mental imagery while reading literature of sketchy, undulating, fragmented images based on some idealised form of our individual childhood locations and primary caregivers or those of some later period. Vision is a creative process, and reading, especially literary reading, involves a flood of mental perceptions as we have seen. In light of this we can suggest that reading has all the best images.

3.6 Conclusion
This chapter was the third in this opening section. The first dealt with discourse processes and memory functions, the second with perception, emotion and cognitive appraisal and this one with LRI. Together they formed ‘some basics of reading’ and in doing so have produced a foundation onto which this thesis may now be built. In addition to being background chapters, they also allowed me to set out my own views pertaining to affective cognition in chapter two and LRI in chapter three. I shall expand these in subsequent chapters. For now, let us briefly review some general assumptions based on the many theories discussed, in order that they be taken forward into the remaining two parts.

• Literary discourse processing involves a blend of sign-fed and mind-fed inputs that interact continually during the act of literary reading. This involves some kind of blend of both projecting and processing. In addition to cognition, it also involves emotion and the body. It is essentially non-linear/non-hierarchical
• Memory is unreliable, constructive and creative; it is also largely culturally determined. It has both implicit and explicit aspects and both are linked to emotion. It is dynamic and is essentially divided into working memory and long term memory, which are linked
• Cognition is fluvial, dynamic and embodied; it is suffused with emotion at almost all stages. It is not linear in appraisal processes but more ‘fluvially blended’; one might provisionally call it ‘oceanic’. We can make a basic distinction between cognitive emotion and affective cognition
• LRI is incomplete and indistinct; it often involves activity/movement and participants and locations from childhood, but also later moments in a person’s life. It comes together in the back integrative cortex and moments of affective reading appear to rely heavily on implicit/unconscious memory
This final concept of LRI has implicit links to the notion that control over the time and place of the reading situation is of importance for the creation of affective states during the reading process itself. In the next chapter, which will be the first of four on ‘some affective inputs during literary reading’, I will explore this in greater detail from the perspective of both pre-reading mood and the location one chooses to put one’s body prior to the literary reading experience. I will also highlight the methodological challenges of testing these two phenomena. These will be followed by chapters on themes and style. All these chapters will be accompanied by more qualitative data from my NRQ. I will conclude Part II of this thesis by proposing in chapter seven a preliminary theoretical model of emotion in literary discourse processing.