Visualising

the

Fantastique

A Cognitive Literary Approach

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The first definition of the word 'fantastic' which comes to mind for many English-speaking individuals today is its informal use as a positive adjective to mean 'excellent, good beyond expectation' (Oxford English Dictionary) However, in earlier dictionary definitions, the meaning of 'fantastic' is related to the imaginary: an 1895 definition states 'fantastic' to mean, 'Existing only in imagination; proceeding merely from imagination; fabulous, imaginary, unreal' (Oxford English Dictionary). In French, the term 'fantastique' is defined as 'Qui n'existe que dans l'imagination, qui n'existe pas dans la réalité.' (Dictionnaire de l'académie française), suggesting that it is still most frequently associated with the idea of the imaginary rather than the positive. The word was derived from the Latin phantasticus or the Greek phantasia, both of which referred to something 'qui appartient au surnaturel, qui est crée par l'imagination' (Trésor de la langue française). This definition is likely to have been what prompted the genre of *fantastique* to be called as such in France.

In this thesis, the *fantastique* will be taken to refer to a type of French literary fiction primarily written across the nineteenth century. Despite the definitions offered for the adjective 'fantastique', *fantastique* as a genre of fiction remains to be clearly defined. Perhaps the issue with defining the genre is in part caused by the dichotomy seen in the *Trésor* definition which suggests the *fantastique* is both belonging to the supernatural *and* created by the imagination. This dichotomy is likely present in the form of an ambiguously supernatural incident featured in *fantastique* works; it is difficult to clarify whether the possibly supernatural component is 'imaginary', that is to say imagined by a character in the story as a dream or hallucination, or 'unreal', to mean present in the story world that the character (and usually reader) believed to follow the rules of the ordinary real world, thus disrupting its assumed physical laws. It could be argued that the lack of clarity between these two possibilities often blurs lines between *fantastique* writing and similar genres featuring the supernatural, such as horror and fantasy. Scholars such as Castex (1956) and Bozzetto (2001) have linked the rise of the *fantastique* to the popularity of the *merveilleux* genre in the seventeenth and eighteenth centuries.

As will be discussed in more detail later in this introduction, the *merveilleux* was known for the supernatural elements within its narrative. However, the *merveilleux* contained both positive supernatural *characters* who often help the protagonist, and negative supernatural characters who threaten the protagonist. In Charles Perrault's *Cendrillon* (1697), for example, the supernatural element is 'sa marraine, qui était fée' (279) or fairy godmother. The fairy godmother helps Cendrillon go to the ball and is thus a positive supernatural character. There are antagonists in *conte de fees,* e.g., Cendrillon's stepsisters, the stepmother in *La Belle au Bois Dormant*, and the wolf in *Le Petit Chaperon Rouge*. Of these, the wolf can be classified as a negative supernatural character, as it can talk. The nature of the supernatural in the *merveilleux*, however, was not concentrated entirely on the characters, but also on the lack of ordinary world restrictions found in these texts; animals talk (*Le Petit Chaperon Rouge*), spells and curses are cast (*La Belle au Bois Dormant*), bodies cut to pieces can be reassembled (*Barbe Bleu*).

The *fantastique* gradually became popular as a mutation of the *merveilleux.* Jacques Cazotte is identified by Castex as one of the earliest French writers to write a *fantastique* text, *Le Diable Amoureux* (1772). It tells the story of a young man, Alvaro, encountering the devil in the form of a beautiful woman called Biondetta. This text differed from the earlier *merveilleux* texts in the dominance of the antagonist, and the emphasis on its supernatural nature. The introduction of the negative supernatural character in *Le Diable Amoureux* is as follows:

> J'appelle, à trois reprises et à très courts intervalles, Béelzébuth. Un frisson courait dans toutes mes veines, et mes cheveux se hérissaient sur ma tête. À peine avais-je fini, une fenêtre s'ouvre à deux battants vis-à-vis de moi, au haut de la voûte : un torrent de lumière plus éblouissante que celle du jour fond par cette ouverture ; une tête de chameau horrible, autant par sa grosseur que par sa forme, se présente à la fenêtre ; surtout elle avait des oreilles démesurées. (Cazotte 17)

The *fantastique* is thus considered to have contained supernatural elements similar to the *merveilleux*, but with increased focus on the negative supernatural elements and how they threaten

the protagonist. Further differences between the two will be unpacked later in this introduction (23). The interest in the genre is then often argued to have increased with the publication of E.T.A Hoffman's *Der Sandmann* (1817). Though originally published in Germany under the title *Die Nachtstücke*, when republished in French, the text was subtitled *Contes Fantastiques*. As will be further discussed in the 'Genre' section (16), this then led to numerous French writers emulating Hoffman's writing style.

The *fantastique* has been written about substantially since its increased popularity in France across the nineteenth century. The genre has been analysed by numerous scholars. Pierre-George Castex's *Le Conte Fantastique en France: de Nodier à Maupassant* (1956) and Marcel Schneider's *Histoire de la littérature fantastique* (1985) discuss the initiation, increase, and decline of the *fantastique* as a genre and acknowledge *fantastique* works written by various French authors, including Charles Nodier, Théophile Gautier, Gérard de Nerval, Prosper Mérimée, and Guy de Maupassant. Tzvetan Todorov took a structuralist approach to the *fantastique* genre in *Introduction à la littérature fantastique* (1970), arguing that it could be defined by whether the reader hesitates when reading a *fantastique* text or not. His approach was positively received by most scholars who discussed the *fantastique* post-1970. Helen Brown wrote about the emotions often associated with the *fantastique* in *L'Effet Fantastique* (1996). Roger Bozzetto's *Le fantastique dans tous ses états* (2001) focuses more on the various types of *fantastique* creatures, including vampires, ghosts, monsters, and doubles. Claire Whitehead's *The Fantastic in France and Russia* (2006) discusses eight *fantastique* texts using Todorov's definition. Gary Cumminskey's *The Changing Face of Horro*r (1992) mapped changes in the narrative and writing of the *fantastique* across the nineteenth century. David Punter and C. Bruna Mancini argue for the dominant role of imaginary spaces in the *fantastique* in *Space(s) of the Fantastic* (2021).

Following Todorov's approach to the genre in *Introduction à la littérature fantastique* (1970), attempts to define the *fantastique* itself have been limited, as those exploring *fantastique* fiction later have often supported his definition. However, although Todorov adopted a unique approach towards

the *fantastique* by using the reader's response to define the *fantastique* rather than the textual features considered by earlier scholars, there were still some valid criticisms raised regarding the limitations of his approach. These, as well as the relationship between Todorov's approach and this thesis will be expanded on further later in this introduction (32-34). In the decades since Todorov's structuralist method, new approaches to literary criticism have come to light which could contribute towards understanding the unique nature of the *fantastique*; one particularly useful approach is cognitive literary theory.

Cognitive Literary Theory

In the abstract to her chapter, "Cognitive Literary Criticism" in *A Companion to Literary Theory*, Gabrielle G Starr (2018) summarises cognitive literary theory as follows:

> Cognitive literary criticism engages the contemporary psychology and neuroscience of reading, consciousness, imagery, social behaviour, decision making, empathy, and perception in order to gain new insight on literature and creativity.

As suggested by Starr, cognitive literary theory seeks to combine ideas from cognitive psychology with literary analysis to consider how a reader's mental processes might work when they engage with a fictional text. While literary analysis often attempts to predict how a reader will respond to a text, it does not often use empirical data from readers to investigate. A cognitive literary approach differs in that it attempts to use insights from cognitive psychology to explore ideas of how a reader mentally responds to a text. Though there have been an increasing number of studies within this field in the last decade, the value of bringing a more scientific approach to literary analysis, and of using insights from literary criticism in science was effectively expressed by Alan Richardson as early as 1999:

> With cognitive theorists heralding the "poetics" of mind and literary critics taking an unprecedented interest in the brain, the next few decades may well witness an era of collaboration

> between literary and scientific researchers, gradually narrowing the longstanding rift separating cultural and biological approaches to language and subjectivity. That would be an experiment well worth making. (173)

Richardson accurately predicted the increase in using approaches from cognitive psychology to understand how one reads fiction. To date, a number of scholars have applied cognitive literary theory using a theoretical approach, in which they hypothesise how most readers are likely to mentally process fiction in relation to visualisation (Scarry 1999, Brosch 2017), kinesic intelligence (Bolens 2013), emotional response (Burke 2010), and predictive processing (Kukkonen 2020), or how they respond to a specific type of fiction, e.g. renaissance literature (Banks and Chesters 2017). Other approaches have brought in empirical research from experiments in cognitive psychology and other cognitive-scientific domains. Researchers have conducted their own reading experiments to investigate reader response; examples include Krasny and Sadoski (2008), who investigated whether English and French speakers have similar emotional and imagery ratings when reading short stories; Troscianko (2013), who considered how self-reporting vividness tasks might not always provide an accurate idea of a reader's visualisation; and Troscianko and Carney (2021), who explored how a reader's perspective might shift when visualising when reading in first versus third person by asking participants to draw a picture resembling their visualisation. While this is by no means an exhaustive list of the increasing number of scholars investigating cognitive literary theory, the studies discussed here relate particularly to how the *fantastique* may be researched using a cognitive literary framework.

Both theoretical and empirical approaches in cognitive literary theory have brought valuable ideas to light about how a reader does and does not engage with fiction. On the literary side, Elaine Scarry introduced some refreshing ideas regarding how readers process ideas of how solid an object is when visualising (Dreaming by the Book 1999). More recently, Karin Kukkonen addresses the inevitable role of predictive processing when reading a work of fiction, encouraging the idea that correct predictions still encourage similar emotional responses from the reader as those from a first-time reading (Probability Designs 2020). On the empirical side, Krasny and Sadoski's work provided support

for the idea of a codependent relationship between emotional response and mental imagery. Troscianko and Carney's work similarly demonstrated that the perspective used in a text (e.g. first versus third person) might not necessarily change how a reader visualises the events of the text. Cognitive literary theory thus offers an opportunity to look at new questions and hypotheses for reading fiction using responses from present-day readers.

Starr's definition also illuminates the broad nature of the field of cognitive literary theory, which comprises, among other things, 'consciousness, imagery, social behaviour, decision making, empathy, and perception' as concepts to explore. The study of imagery when reading fiction is a frequently-researched field within cognitive literary theory; it has been explored for its relationship with emotional response (Sadoski 1988, Krasny and Sadoski 2008), empathy (Larsen and Lazlo 1990), vividness (Troscianko 2013, Brosch 2018), and nonvisual imagery, such as auditory (Kuzmicova 2013).

This thesis focuses on the vividness of a reader's visualisation when engaging with the *fantastique* using a combination of existing theories about what makes a reader's visualisation vivid, and an experiment to consider how these ideas may or may not be supported with empirical data. In doing so, it will combine the theoretical and empirical approaches within the field of cognitive literary mentioned here. Chapters 1, 2, and 3 will present hypotheses about how a *fantastique* text may be visualised. Chapter 4 and 5 will then consider the extent to which these ideas are supported using data from the reading experiment conducted. I thus hope to firstly, apply ideas of how readers visualise and their vividness of visualisation to the unique nature of the *fantastique* genre, and secondly, consider the distinction between how we think readers visualise in theory, and how they visualise as suggested by experiment data.

Visualisation

The nouns 'visualisation' and 'visual image(ry)' will be used interchangeably in this thesis. The Oxford English Dictionary defines the term as, 'The action or fact of visualizing; the power or process

of forming a mental picture or vision of something not actually present to the sight; a picture thus formed'. Visualisation thus refers to the images a reader is likely to form in their mind when reading the words of a text. The terms 'visualisation' and 'visual image(ry)' both refer to the reader's mental process of visualising descriptions of objects and actions based on the words in the text.

Visualisation has been frequently discussed in relation to reading fiction. Philosopher Amy Kind, academic Joanna Ahlsberg, novelist Peter Mendelsund, and several others have all argued for the invaluable role of visualisation in reading fictional works. Ahlsberg summarises the importance of visualisation to fiction as follows:

> No one can read a work of fiction or hear a story without entertaining some sort of imagery. It is impossible. As soon as some phenomenal description is involved in the imagined scenario, SP [sensory perception] does the work of recreating our phenomenal experiences with images. These images are always related in some way to the propositional content of the imagining, and to an extent, the images fix the content of what it is that we are imagining. (33)

Ahlberg takes a more definitive approach than is likely to be accurate**;** research such as that by Zeman et al (2015) which will be further discussed in Chapter 1 (47) has indicated that it is possible to have aphantasia or a complete absence of mental imagery. In these cases, it is therefore possible to 'read a work of fiction without entertaining some sort of imagery'. Alhberg's claim regarding the frequent use of mental imagery is nonetheless likely to apply to majority of the reading population; usually reading a work of fiction is accompanied by the reader's visualisation.

As Ahlberg suggests with the phrase 'some sort', visualisation can vary between readers. Mendelsund (2014) and Troscianko and Carney (2021) for example, have highlighted how different readers visualise slightly different images using the text imagery when asked what to draw using their mind's eye. There are many elements one could investigate in relation to individual variations in visualisation; tests have been developed to investigate visualisation skills such as rotating a shape (Shepard and Metzler 1971), length of duration of a mental image (Cocude and Denis 1986), mental image

generation (Podgorny and Shepard 1978), and the size of various components in mental images (Moyer 1973). More specific to fiction, it has been suggested through empirical research and theoretical analyses that visual imagery is fleeting and is not retained for long in the mind (Cocude and Denis 1986 and Mendelsund 2014 respectively). Amy Kind, Sadoski (1988), Timothy Schroeder and Carl Matheson (2006), Krasny and Sadoski (2008), and several others have drawn a relationship between visualisation and the reader's emotional response. Stephen Kosslyn (2006), Amy Kind (2006), and Michelle Montague (2017) have argued for the value of perceptual strength in visual imagery, arguing that knowing what an object looks like contributes to how it is visualised by a reader when reading a sentence containing that word. As will be discussed in Chapter 1 (47), Marks (1973) and Zeman et al (2020) have demonstrated through experiments that readers' ability to visualise can differ greatly.

I will argue that the trait of visualisation most likely to be affected when reading the *fantastique* is vividness. While the previous section mentions research demonstrating individual differences in visualising ability, I would argue that vividness is also notably affected by text content when reading. As will be unpacked across Chapters 2 and 3, in addition to a reader's baseline visualising ability, texts high in perceptual strength, emotion-evoking writing, kinaesthetic imagery, and nonvisual imagery (e.g. auditory, haptic, olfactory, etc) likely increase a reader's vividness of visualisation. Similarly, text content can likely also cause drops in vivid visualisation: the absence of these features, as well as text that is difficult to understand in some way could cause a reader's vividness of visualisation to decrease.

As indicated by the title, this thesis will use the framework of cognitive literary theory to explore the vividness of a reader's visualisation when reading the *fantastique*. This will be done through a theoretical approach in the first three chapters before the method and results of an experiment conducted to gather empirical evidence is discussed in the final two chapters. Before further discussing the relationship between the *fantastique* and vivid visualisation, the next section will clarify how certain terms are being defined in the thesis.

Definitions

Multimodal Imagery

The definition of 'visualisation' (11) drew a contrast between 'visual imagery' as opposed to 'auditory imagery', 'haptic imagery', 'kinaesthetic imagery'. As will be further discussed in Chapter 3 (169), there are many hypotheses regarding the multimodal nature of what the reader processes from the text which includes not just visual but non-visual senses. It is worth stating here that it is difficult to disentangle these different types of imagery from one another. However, the term 'multimodal imagery' will be used when referring to a synthesised image combining visualisation with at least one other sense rather than imagery using one of the senses alone.

Text Imagery/Text Description

When referring to the description of a person, object, or action in the text, I will use the term 'text imagery' or 'text description'. Both refer to what Elaine Scarry calls a 'set of instructions' in a fictional work for how to visualise: 'When we say "Emily Brontë describes Catherine's face," we might also say "Brontë gives a set of instructions for how to image or construct Catherine's face". (6). It is worth distinguishing text imagery from visualisation as not every aspect of what is described in the text always translates to a reader's visualisation; this will be further discussed across Chapter 1 (47).

Vividness

The term 'vivid', which is central to my argument, might seem a bit ambiguous. Elspeth Jajdelska offers some context:

> The term vividness has been used in a variety of senses and contexts. For some social psychologists, for example, vividness is a way of presenting information that uses some or all of the following: pictures, emotive topics, and physical detail […]. Meanwhile, literary critics sometimes

> use vividness as a measure of how far the reader feels as though a scene, object, or event related by the author really exists or happened. (434)

My definition of vividness, though closer to the definition of literary critics in Jajdelska's quote is not the same. Her use of the phrase 'as though a scene, object, or event…really exists or happened' is difficult to apply to the *fantastique*, which relies heavily on the ambiguity around whether the possibly supernatural event truly occurred or not. While the idea of something truly existing or not cannot therefore directly apply to the definition of vividness being used in this thesis, the idea of veridical perception underlying it is valid. On Marks' VVIQ scale (1973) used in the experiment, where participants rank their vividness of visualisation on a scale from 1 to 5, vividness is almost synonymous with the idea of clarity. The highest ranking, 5, is defined as 'Perfectly clear and as vivid as normal vision' (Marks 18). 'As vivid as normal vision' indicates that the more vivid an image is, the more it resembles the veridical perception of the object. For this thesis, my definition of 'vividness' is the extent to which a mental image feels clear and as much as possible like veridical perception to the reader, as suggested by Marks' highest rating in the VVIQ.

Perceptual Strength

Perceptual strength refers to how effortlessly a reader is likely to evoke a visual mental image of a word. This idea will be further expanded upon in Chapter 2, 'What Makes Visualisation Vivid?' (93).

To date, empirical data collected on perceptual strength has often been done by creating word banks, e.g. Desrochers and Thompson (2009), Bonin et al (2018), and Lynott et al (2020). In word bank studies, participants are normally asked to rate the perceptual strength of various words on a scale, e.g. 0 to 5 in the Lancaster Norms (Lynott et al 2020). Lynott et al's Lancaster Norms will be used prominently across Chapters 2, 3, and 5 of this thesis. It is a database containing 40,000 words. It is possible to find perceptual strength ratings for any of these words on eleven modalities: visual,

auditory, olfactory, haptic, gustatory, interoceptive, hand-arm, foot-leg, mouth, head, and torso out of five based on 12,312,757 individual ratings (Lynott 1277).

Conte fantastique

Conte is defined as 'Récit, en général assez court, de faits imaginaires' (Larousse). Schaeffer however identifies how various types of writing have been classified as 'conte' over the centuries:

> Prenons le terme de *conte*. Au moyen âge il s'applique à toutes sortes de récits ou d'anecdotes, et c'est en ce sens que dans le *Roman de la Rose* on parle des *contes* du roi Arthur. A l'âge classique, le terme se différencie selon plusieurs acceptions plus ou moins bien délimitées : il désigne, selon les contextes, un récit plaisant, un récit fictif (parfois avec une nuance péjorative) ou un récit merveilleux (Perrault). Au XIXe siécle, il fonctionnera comme alternative au terme *nouvelle* et en arrivera à désigner n'importe quel récit plutôt bref. (65)

Schaeffer's argument here and more largely in *Qu'est-ce qu'un genre littéraire* (1989) states that the definition of terms such as *conte* have fluctuated over the centuries. His final line discussing the interchangeable nature of *conte* and *nouvelle* in the nineteenth century is particularly important to the *fantastique*. Both *contes* and *nouvelles* have been published under the label *fantastique* in the nineteenth century.

For their usually short length and their fictional nature, most *fantastique* works are identified as 'contes'. Numerous collections of such works are thus often titled 'Contes Fantastiques' (Appelbaum 2006, Buisine 2011, Crespin 2013). Texts such as *Le Manuscrit Trouvé à Saragosse* (Potocki 1805), *Aurelia* (Nerval 1855), and *Spirite* (Gautier 1866) have all been classed by Castex (1951) and Todorov (1970) as works within the *fantastique* but are all long texts of over twenty pages. Though there are challenges, as suggested by Schaeffer, in identifying the limits of a *conte*, for the purposes of this thesis, a *conte fantastique* is defined as any *fantastique* text written in under 5,000 words. This definition is built largely on the types of texts which have been classified as a *contes fantastique* in

existing *fantastique* collections. The corpus chosen for this thesis contains thus five *contes*: *Une Heure ou la Vision* (1806) by Charles Nodier, *La Cafetière* (1831) by Théophile Gautier, *La Vision de Charles* (1829) by Prosper Mérimée, and *Lui ?* and *Apparition* (both 1883) by Guy de Maupassant.

Nouvelles

Scholars such as Schaeffer and Stéphanie Lebon (2013) have commented on how the *conte* is difficult to distinguish from the *nouvelle*, with the latter writing, 'jusqu'à aujourd'hui, aucun théoricien ne s'est mis d'accord sur une partition générique' (134). In line with the definition suggested here for *conte fantastique*, the *nouvelle* is being defined as a text between 5,000 and 40,000 words. This is based largely on the length of *fantastique* works; texts which fall within this range have usually been labelled as 'nouvelles' by publishers. While there are also works longer than 40,000 words which have been labelled as *fantastique*, e.g. *Le Manuscrit Trouvé à Saragosse*, they are very rare. Most *fantastique* works which are not *contes* therefore fall into the category of *nouvelles*. The corpus of this thesis contains three nouvelles: *Inès de Las Sierras* (1837) by Charles Nodier, *La Morte Amoureuse* (1836) by Théophile Gautier, and *La Vénus d'Ille* (1837) by Prosper Mérimée. This allows for a larger number of texts to be incorporated into the corpus for analysis of similar features. Despite differences in length, both *contes* and *nouvelles* usually overlap in their depiction of the *fantastique* incident which is usually an unexpected ambiguously supernatural intrusion into the assumed ordinary storyworld of the narrative.

Genre

The purpose of this section is not to question the term *genre* itself; it is to establish why the *fantastique* is identified as a genre. This is important because the corpus of this thesis consists of texts which have been classified as *fantastique* by multiple scholars, even though the definition and limits of the genre itself has never been as clearly established as compared to other genres using the

supernatural, e.g. merveilleux, conte de fée, etc. Though there are different approaches to how a genre can be defined, such as through recurring traits in different texts (e.g. Propp's 1928 analysis of folktales) or a particular style of writing (e.g. plays), the prototype method provides an effective explanation for how the *fantastique* was established as a genre.

In his book *Genre* (2006), John Frow suggests that one way to consider how a genre is determined is the prototype method. He argues that often one text is used as a prototype, based on which other texts are then accepted or rejected for the genre. He considers the example of *Iliad*: 'The *Iliad*, the *Odyssey*, the *Epic of Gilgamesh* and *Paradise Lost* are all texts that we class as epics, but the *Iliad* is the prototype we use to determine the category into which the others fall' (59). The prototype theory is likely applicable to the *fantastique*, especially when it was first introduced to France. Most early nineteenth-century *fantastique* texts were written by emulating and imitating E.T.A Hoffmann's *Der Sandmann* (1817).

Der Sandmann tells the story of a young man named Nathaniel who is fixated on his father's acquaintance, Coppelius, who he feared as a child and is implied to have killed his father. The story then shifts to years later, when Nathaniel meets Coppolla, a man who sells glasses and resembles Coppelius. He falls in love with a woman named Olympia, abandoning his fiancé, Clara, only to find Olympia is an automaton, whose eyes were created by Coppolla. The story ends with Nathaniel seeing Coppella (or possibly Coppelius) from a clock tower and jumping to his death. Hoffman is often credited with initiating the popularity of the *fantastique* genre in nineteenth-century Europe. As Gary Cumminskey writes in *The Changing Face of Horror*, 'For the public of the first period, a *conte fantastique* was necessarily a story written either by or in emulation of Hoffmann, who was celebrated as the originator of the genre' (21). This is evident in the use of the phrase 'conte fantastique', which was popularly associated with Hoffman, when some of these texts were first published (e.g. Théophile Gautier's *La Cafetière* in *Le Cabinet de Lecture* in 1831). When tracing the evolution of the *fantastique*

genre in the nineteenth century, Gary Cumminskey similarly describes what the readers expected from a *conte fantastique* based on their experiences reading Hoffman:

> Familiarity with the stories of Hoffmann accustomed the readers to a fantastic element belonging to the conventional conception of the supernatural realm. The public was used to a realistic, graphic depiction of the fantastic element and of the characters and setting that constituted the non-fantastic element. They expected the fantastic to consist of the sudden intrusion of the supernatural into the natural cadre and the brutal interaction of the two orders on the material plane. (56)

It is likely that after initially imitating Hoffman's style, the *fantastique* genre began to take a shape of its own under the wing of the various French writers. However, Frow's explanation for how a prototype genre arises combined with Cumminskey's description of nineteenth-century reader expectations from the *fantastique* indicates that the prototype genre is dependent on the initial text which establishes the genre sharing characteristics with those which follow its example.

Given how effectively the prototype idea can be applied to the *fantastique*, it is difficult to understand why we still do not have a clear definition of the genre today. This is possibly in part because the nineteenth-century French *fantastique* broke away from being an emulation of Hoffman. Armand du Pontmartin suggested that the *fantastique* could be divided into two distinct halves:

> Permettez-moi de noter la différence des inspirations et des temps…Le fond des récits d'Hoffmann, c'est l'art, l'amour, la symphonie, le merveilleux, l'étonnement, l'effroi, entrevus à travers une sorte d'ivresse ou d'extase, qui en agrandit les aspects fantastiques, et promène l'imagination dans une nuit lumineuse, peuplée d'ombres et de revenants, d'étoiles et de lanternes sourdes. Le fond des histoires d'Edgar Poe, c'est le calcul, l'analyse, l'algèbre, désertant leur terrain solide et positif, et se combinant, dans un cerveau exalté ou malade, avec l'imagination la plus subtile. (Pontmartin 1)

While Pontmartin arguably simplifies this division between two kinds of *fantastique* writing to a great extent, his argument here illustrates that the *fantastique* did not maintain a consistent writing

style throughout the nineteenth century. This is further evident when looking at *fantastique* works across the nineteenth century, as will be done using my corpus. There are common differences in the narrative; those of Gautier for example, written between 1831 and 1866 often feature a romantic relationship between the young male protagonist and a young and beautiful woman described in detail, the source of the *fantastique*. Maupassant's protagonists on the other hand usually only fear the minimally-described *fantastique* presence. The difference is clearly demonstrated, for example, if the *fantastique* trigger is compared in Gautier's *La Morte Amoureuse* and Guy de Maupassant's *Apparition*. In both cases, the *fantastique* trigger is a woman. Clarimonde, who is eventually revealed to be a vampire in *La Morte Amoureuse* has a 556-word introduction describing her physical beauty in detail. To compare, Maupassant's description of the unnamed female ghost in *Apparition* is, 'Une grande femme vêtue de blanc me regardait, debout derrière le fauteuil où j'étais assis une seconde plus tôt' (784). Such differences as well as differences in length (15-16) could in part contribute towards why it has been difficult to define the genre.

The *fantastique*: existing definitions

The following table gives various literary scholars' definitions of the *fantastique* genre. This is by no means an exhaustive list of those who have attempted to define the *fantastique*, but rather focuses on those whose definitions are frequently acknowledged in literary criticism regarding the *fantastique*.

Year	Writer	Definition
1956	Pierre-Georges Castex	Le fantastique, en effet, ne se confond pas avec l'affabulation conventionnelle des récits mythologiques ou des féeries, qui implique un dépaysement de l'esprit. Il se caractérise au contraire par une intrusion brutale du mystère dans le cadre de la vie réelle ; il est lié généralement aux états morbides de la conscience qui, dans les phénomènes de cauchemar ou de délire, projette devant elle des images de ses angoisses ou de ses terreurs. (8)
1970	Tzvetan Todorov	Le fantastique implique donc non seulement l'existence d'un événement étrange, qui provoque une hésitation chez le lecteur et le héros ; mais aussi une manière de lire, qu'on peut pour l'instant définir négativement : elle ne doit être ni "poétique" ni "allégorique. (37)
1985	Marcel Schneider	C'est un produit de rupture, une déchirure soudaine dans l'expérience vécue du quotidien…il suffit de croire aux réalités invisibles. (8)
1992	Gary Cuminskey	In both accounts, the fantastic element consists of the Unknown. Placed in disorienting circumstances and faced with occurrences which seem to defy the fundamental principles of common experiences, the narrator's mind conjures up fantastic terrors, projecting them onto ordinary natural phenomena. (128)
1997	Helène Diaz Browne	En somme ; le fantastique est d'abord une idée, un simple concept que le récit littéraire module à sa guise, à l'infini. L'idée que notre monde, notre quotidien peut à tout moment être dérangé, transgressé, boulversé de fond en comble, être perçu autrement que par la raison raisonnante, devenir un champ d'inconstance, d'aléa, de duplicité, d'équivoque, une chimère, le mouvement même de l'imaginaire. (23)
1998	Roger Bozzetto	Le texte fantastique instaure et rend sensible un type particulier de rapport au monde. Il le rend manifeste par la présence, dans le monde représenté, d'objets, d'événements et/ou de situations banales. Avec ceux-ci, il construit des simulacres (langagiers ou iconiques) qui se réclament de l'évidence, lais dans lesquels la cohérence apparente du monde empirique, pourtant convoquée est subordonnée à l'existence supposée d'autres lois. Celles-ci demeurent mystérieuses et donc angoissantes, car le texte n'y donne jamais accès. On peut poser comme hypothèse que les textes fantastiques construisent ainsi, pour les explorer, diverses modalités d'une déperdition du symbolique, et permettent donc un affleurement informulable du réel. Un des effets en est souvent, pour le lecteur, une sensation de terreur, ou d'horreur. (8)

Figure 1[1]

[1] All my Italics in Figure 1

This table of definitions suggests why it is still notoriously difficult to define the *fantastique*. Although they are all attempting to define the same genre, there is no total agreement over what the *fantastique* means. Firstly, it is not always restricted to being a genre; it is referred to as an *idéé* (Browne), a *produit* (Schneider), an element (Cumminskey), or an independent adjectival noun with 'le *fantastique'* (Castex, Todorov). The word 'idée' suggests that the *fantastique* is something broader than the narrative within the text. In contrast, 'produit' refers to the *fantastique* being an outcome of a particular event. 'Element', like 'produit', suggests that the '*fantastique'* is a part of the narrative rather than a broader concept to be applied to the world (idée). However, the word 'element' suggests it to be more of a component within the narrative rather than the outcome (produit). Finally, the use of the word '*fantastique'* as its own noun as done by Castex and Todorov relates it the most strongly to being a genre or type of text.

Beyond how the *fantastique* itself is characterised, there are also differences in what the definitions stress as key features of the *fantastique*. Castex focuses on the *fantastique* being strongly connected to the inner consciousnesss, Bozzetto and Schneider focus more on what it suggests about the outer world. Additionally, the various approaches to defining the *fantastique* differ not only in the elements each scholar chooses to focus on but also in the angle from which they approach it. Many who have attempted to define the *fantastique* (including Castex, Schneider, Bozzetto, and Cumminskey from Figure 1) have chosen to define it based on text components found in *fantastique* writing. Tzvetan Todorov's definition in *Introduction à la littérature fantastique* (1970), on the other hand, often considered the primary definition of the genre in the present day, is unique not only in its focus on hesitation as a central emotion to the *fantastique* but also in how it considers the *fantastique* in relation to how the reader responds to it. The success of Todorov's approach suggests that it might be useful to further look at the reader's responses when engaging with the *fantastique*.

Despite these numerous differences between these descriptions, two key commonalities emerge from the table of descriptions which could contribute towards creating a clearer definition of

fantastique writing: the frequent association of negative emotions in the *fantastique*, and the use of an ambiguously supernatural incident.

Negative Emotions

Three scholars in Table 1 highlight the relevance of negative emotions in the *fantastique*. Castex relates the *fantastique* to the 'états morbides de la conscience' and claims it uses one's nightmares and projects 'images de ses angoisses ou de ses terreurs' (8), referring to the character within the text. Bozzetto draws attention to similar negative émotions of 'terreur, ou d'horreur' (8) but for the reader. Finally, Gary Cumminskey mentions that the narrator's mind 'conjures up *fantastique* terrors' (128). Negative emotions have therefore been associated with the *fantastique*, for both the reader and the characters within the text. In many works, once the characters have encountered the *fantastique*, the protagonist is unable to return to his life as it was before; they are either scarred by the experience, or in some cases, killed by the *fantastique*. The narrator or protagonist (often the same in *contes fantastiques*) often clearly states feeling strong negative emotions, e.g. fear, anxiety, and confusion, among others.

As will be further unpacked in Chapter 2 (93), the extent to which a reader's responses reflect those of the characters in a text is debatable. A number of factors can create a more complicated relationship with empathy when reading the *fantastique*. A reader, for example, might not be scared by the narrative to the extent that the character is. An unempathetic reader is nonetheless still likely to recognise the negative emotions being conveyed through the text imagery and be able to recognize that there is usually an element of unpleasantness or even danger in the ambiguously supernatural incident. However, because of this possible gap between the text writing and the reader's emotional response, when discussing negative emotions in relation to the *fantastique*, the thesis will use the term 'emotion-evoking writing'. It is worth recalling at this point that this thesis will explore the vividness of a reader's visualisation rather than the strength of their emotional response (10). A reader's

vividness of visualisation might differ uniquely in the *fantastique*, but they might still come across similar negative emotional-evoking writing when reading *fantastique*-adjacent genres, such as horror. It is nonetheless important to consider the value of emotion-evoking writing in the *fantastique* as firstly, its relation to fear is a key feature of the genre, and secondly, as will be discussed further in Chapter 2 (93), some studies suggest a positive correlation between heightened emotional response and heightened vivid visualisation. A third and important reason to consider emotion-evoking writing here is because it distinguishes the *fantastique* from some of the other genres it is sometimes confused with, such as the *merveilleux* and fantasy. It is worth acknowledging here that the *merveilleux* is a seventeenth and eighteenth-century genre preceding the rise of the *fantastique*, while fantasy and horror are both present-day genres associated with English fiction and cinema. The association, commonalities, and differences of the three with the *fantastique* will now be unpacked to illustrate the extent to which the *fantastique*'s unique nature can be identified.

The merveilleux

Literary critics such as Marcel Schneider, Pierre-Georges Castex, and Roger Bozzetto have linked the emergence of the *fantastique* genre to that of the *merveilleux*. *Merveilleux* was described as early as 1100 as 'qui dépasse les limites ordinaires' (*La Chanson de Roland*). In the nineteenth century, two prominent definitions of the *merveilleux* are, 'Qui cause un vif étonnement par son caractère étrange et extraordinaire' and 'Qui suscite l'étonnement et l'admiration en raison de sa beauté, de sa grandeur, de sa perfection, de ses qualités exceptionnelles'. This definition suggests that the word 'merveilleux' had positive connotations but was associated with something that surpasses the limits of the ordinary world. *Merveilleux* texts therefore, featured supernatural events as a key part of the narrative. The most popular examples of the *merveilleux* are usually found in sixteenth and seventeenth-century *contes de fées*, such as *Cendrillon* (Perrault 1697) and *La Belle et la Bête* (Villeneuve 1740)

The genre of *merveilleux*, therefore, can be used to refer to any aspect of a story which clearly deviates from the limits of the real world, from Marie de France's *Lais* and Chretien de Troye's *Le Conte du Graal* in the Middle Ages which involve unworldly occurrences such as a man turning into a wolf (Bisclavret), to Perrault's sixteenth-century *contes de fées*, which involve magic, witchcraft, and other worlds. As Schneider argues in *Histoire de la littérature fantastique*, the *fantastique* genre may not have really established itself in France until the 1830s, but 'il avait existé dès le début du Moyen Age jusquà maintenant et qu'il s'était manifesté dans les genres voisins du merveilleux, de l'occulte, de l'ésotérique, du féerique, du surnaturel, de l'étrange, du frénétique, et du bizarre.' (8) Roger Bozzetto and Pierre-Georges Castex suggest that the *fantastique* is a mutation of the *merveilleux*, writing, 'Comment ignorer la fonction du merveilleux 'folklorique' lors de la création du genre fantastique ?' (9). The *fantastique* genre then, though it may overlap with the *merveilleux* and even have originated from it as per some scholars deviates from it in two significant ways. Firstly, as illustrated earlier (22), a key difference between the *fantastique* and the *merveilleux* is that the former contains negative emotions far more strongly. J.B. Baronian summarises the difference :

> Le merveilleux n'est pas une littérature de bouleversement, nonobstant le surcroît d'étrangeté qu'il laisse apparaître et le recours à des situations surnaturelles. Au contraire, il viserait plutôt à créer un équilibre dans le monde par le moyen d'une simulation purement chimérique. Le fait même de dire « il était une fois » suffirait à le démontrer (19).

Writings belonging to the *fantastique* genre often demonstrate the dark side of a human's imagination or the possibility of evil forces in the world humans inhabit. As Bozzetto writes in the introduction to *Territoires des Fantastiques* (1998), 'Une dimension fantastique du rapport de l'homme au monde tend alors à s'instaurer, qui fait intervenir des sensations de malaise, de peur, d'effroi, de panique, d'angoisse' (6). The second key difference between the *merveilleux* and the *fantastique* is that identified by Tzvetan Todorov when he argues that a key criterion for a text to be identified as *fantastique* is that it should be 'ni poétique, ni allégorique' (36). By this, Todorov means that a fantastique text should be set in the ordinary world in which supernatural occurrences such as animals talking

should not be possible. The *merveilleux* however is often set in such a world, and therefore asks the reader to engage with 'le surnaturel accepté' (Todorov 47) with no ambiguity about the rules of the world being broken.

Fantasy versus *fantastique*

The conflation between fantasy and the *fantastique* is evident in the way certain collections are translated from French. For example, Stanley Appelbaum's dual-language 2006 collection titled *Contes Fantastiques Célébres* is translated into English as *Great French Tales of Fantasy*. It is possible this kind of translation occasionally occurs because of the origins of *fantastique* writing from the *merveilleux*. Both the *merveilleux* and fantasy are similar in the prominence given to positive rather than negative emotions, as well as in their acceptance of the supernatural in the narrative world. In fantasy, an alternate fictional universe is often established from the very beginning. One could consider the beginning of J. R. R Tolkien's *The Lord of The Rings* (1954), where on the very first page, the reader is informed that the principal of minimal departure cannot entirely be applied to this text:

> Hobbits are an unobtrusive but very ancient people, more numerous formerly than they are today; for they love peace and quiet and good tilled earth: a well-ordered and well-farmed countryside was their favourite haunt. They do not and did not understand or like machines more complicated than a forge-bellows, a water-mill, or a hand-loom, though they were skilful with tools. Even in ancient days they were, as a rule, *shy of 'the Big Folk', as they call us, and now they avoid us with dismay*[2] and are becoming hard to find. (Tolkien 1)

Tolkien clearly sets out the idea that readers are about to read a text which is not entirely based in the ordinary world they live in. Writers of the *fantastique*, on the other hand, often begin their stories emphasising the normal, even mundane nature of the protagonist's existence. An example is Guy de Maupassant's *Le Horla* (1887). The third and most popular version of the text is written

[2] My Italics

in the form of a young bachelor's diary and describes him being haunted and gradually possessed by an unseen being. This eventual presence of the supernatural however cannot be detected at the beginning of the text:

> Quelle journée admirable ! J'ai passé toute la matinée étendu sur l'herbe, devant ma maison, sous l'énorme platane qui la couvre, l'abrite et l'ombrage tout entière. J'aime ce pays, et j'aime y vivre parce que j'y ai mes racines, ces profondes et délicates racines, qui attachent un homme à la terre où sont nés et morts ses aïeux, qui l'attachent à ce qu'on pense et à ce qu'on mange, aux usages comme aux nourritures, aux locutions locales, aux intonations des paysans, aux odeurs du sol, des villages et de l'air lui-même. (Maupassant 913)

This text does not simply establish the presence of the ordinary world through the principle of minimal departure, which is usually the default assumption of the reader; it emphasises it with mentions of real-life objects and mundane actions including 'étendu sur l'herbe', 'maison', 'paysans', 'odeurs du sol', and 'villages'. The introduction of the possible supernatural later in the text with 'Quelqu'un s'approche de moi, me regarde, me palpe' (916) is likely unanticipated by the reader. A key feature of *fantastique* writing are such unanticipated intrusions of the possible supernatural into the text.

I have distinguished the *fantastique* from similar genres such as fantasy and the *merveilleux* on the basis of the prominence given to different emotions and the lack of ambiguity around the supernatural in the *merveilleux* and fantasy. It is more challenging to distinguish the *fantastique* from horror, as they both have a similar base of emotion-evoking writing with negative emotions, and similar narrative structures with supernatural intrusions.

Horror versus *fantastique*

The genre of horror and the genre of the *fantastique* have been confused by scholars. Viktória Prohászková, for example, uses Todorov's theory to explain horror rather than the *fantastique* in her

paper, 'The Genre of Horror' (2012), referring to Todorov's categorisation of the uncanny, merveilleux, and fantastique as three 'sub-genres' of horror.

> Horror is a varied genre that is hard to be defined by one single definition. And therefore the most accurate is the one that defines horror through each of its categories and its subgenres. Todorov distinguishes between three forms of horror as a genre: uncanny, marvellous and fantastic (132).

It is understandably more challenging to distinguish horror and the *fantastique* as they do not share the key difference in the emotions found in the narrative suggested between the *merveilleux* and the *fantastique* as well as between fantasy and the *fantastique*. However, there is still a difference between what should be identified as 'horror' and what is identified as *fantastique*. Todorov's central idea regarding the uncertainty around the supernatural incident (20) seems valid here: while the *fantastique* and horror both usually elicit negative emotions such as fear, only the *fantastique* contains uncertainty about the supernatural intrusion. While there can be doubt in certain horror stories regarding the verity of the events occurring within the narrative world especially in the beginning, at some point within the story, this doubt is confirmed to be caused by a supernatural entity; the text then focuses on how said entity can be confronted or escaped. For example, in *Dracula* (1897), a novel usually considered to be part of the *fantastique* tastic genre, Jonathan Harker begins by being uncertain of the Dracula's true nature. However, once the Dracula is established to be a vampire, there is no question about its existence; the remainder of the story is more focused on how Jonathan and the other characters fight the Dracula.

In the *fantastique*, it is more challenging to ever determine what occurred in the narrative. To compare with *Dracula*, in *La Morte Amoureuse*, which tells the story of a priest discovering that the woman he loves is a vampire, there is much more uncertainty about what the truth is. Every encounter during which Clarimonde displays behaviour disrupting the rules of the assumed ordinary storyworld (e.g. waking up from death, drinking blood) is described with uncertainty about whether it truly

happened. The primary difference between horror and the *fantastique* therefore seems to be the eventual acceptance of the supernatural, which only happens in the former. One could also further argue that this is also why fantasy and horror texts can also be captured in a novel-length text (e.g. *Dracula*, *Frankenstein*), or over multiple books or films, whereas *fantastique* texts are most often written as a *conte* or at most a *nouvelle*; the ambiguity is more easily maintained if the encounter with the possible supernatural is fairly limited in an otherwise ordinary world. The comparisons of fantasy and horror genres with the *fantastique* suggest that the overarching distinguishing feature of the *fantastique* is the ambiguous nature of the possible supernatural incident texts of this genre contain.

The Ambiguously Supernatural Incident

The most frequent point of agreement among the different scholars of the *fantastique* in Table 1 (20) is that a possibly supernatural element is introduced to the text at some point. However, for the reader, this intrusion is unanticipated[3]. A *fantastique* text usually begins with no indication of the fictional world being different from that of the reader. If reading without knowledge of the genre, the reader would not anticipate that the supernatural would play a role in the text. The principle of minimal departure accurately explains this reading behaviour. Marie-Laure Ryan (2016) summarises the principle:

> When reconstructing a fictional world, fill in the blanks left by the text by assuming its similarity to the actual world. Do not make gratuitous changes- your experience of reality can only be overruled by the authority of the text. (533)

Though Ryan phrases her definition as an instruction to be followed, the principle of minimal departure is likely to occur subconsciously when reading. Richard J. Gerrig gives a concrete example of the principle using art: 'Although we cannot see her lower torso, we are quite willing to infer that

[3] The distinction between a first-time reader and re-reader will be further unpacked in Chapter 1 (67)

Mona Lisa has legs. To put this another way, we would be genuinely surprised to discover that she does *not* have legs' (29). The 'genuine surprise' Gerrig refers to is what I would argue occurs when one begins reading any fictional text, including the *fantastique*; the reader assumes it is set in the ordinary world until otherwise indicated.

Several of the scholars mentioned in Table 1 (20) imply the unexpected introduction of the possible supernatural into the *fantastique* as a feature of the genre. Castex writes 'Il [the *fantastique*] se caractérise au contraire par une intrusion brutale du mystère dans le cadre de la vie réelle' (8). Schneider calls it 'un produit de rupture, une déchirure soudaine dans l'expérience vécue du quotidien' (8)**.** Browne mentions 'L'idée que *notre* monde, notre quotidien peut à tout moment être dérangé, transgressé, boulversé de fond en comble' (23). Bozzetto similarly describes how *fantastique* writing often sets up 'situations banales' before suggesting 'l'existence supposée d'autres lois' (8). Other writers analysing the *fantastique* not included in the table such as Claire Whitehead (2006) and J.B Baronian (1978) also mention the unexpected introduction of the supernatural into the text in their books. The ambiguity expressed in *fantastique* works is further evident when looking at how the ambiguously supernatural event is described by the usually first-person narrator. The following table contains some examples.

Year	Writer	Text	Quote
1805	Jan Potocki	Le Manuscrit Trouvé à Saragosse	'Je me sentais *rêver*…je me perdais dans le vague des plus folles *illusions'*. (85)
1836	Théophile Gautier	La Morte Amoureuse	'Je m'endormis bientôt profondément et mon *rêve* se continua'. (106)
1837	Prosper Mérimée	La Vénus d'Ille	'Alors j'entendis distinctement les mêmes pas lourds, le même craquement de l'escalier que j'avais entendus avant de m'endormir. Cela me parut singulier. J'essayai, en bâillant, de deviner *pourquoi M. Alphonse se levait si matin*. Je n'imaginais rien de vraisemblable. (752)
1874	Auguste de Viliers de l'Isle-Adam	Véra	Il sortit de la chambre, exécuta les ordres à la lettre et, le soir même, l'insolite existence commença. Il s'agissait de créer *un mirage* terrible. (14)
1883	Guy de Maupassant	Lui	'J'avais eu une *hallucination*- c'était là un fait incontestable.' (873)
1887	Guy de Maupassant	Le Horla	'Ai-je perdu la raison ?' (919)

Figure 2[4]

This table illustrates the character's doubt around or attempt to rationally explain the intrusion of the possible supernatural in *fantastique* texts. It is also worth noting that the doubt around the supernatural incident is not always explicitly expressed through an unreliable narrator. In *fantastique*

[4] My Italics

texts such as Merimée's *La Vénus d'Ille* (1837) and Charles Nodier's *Inès de las Sierras* (1837) for example, the events of the story are described through rational narrators who doubt the supernatural intrusion. In such cases, the ambiguous nature of the supernatural is nonetheless established; the rational narrator faithfully covers every detail of the *fantastique* incident reliably and argues for why it is not likely to be a supernatural incident, but in doing so, describes an inexplicable event to the reader which seem likely to have no possible explanation other than the supernatural. For example, in the quote from *La Vénus d'Ille* in Table 2, the narrator does not suggest that there is anything out of the ordinary in the sounds he is hearing. However, the detail with which he describes the sound combined with the reader's awareness of the earlier events in the text which describe a heavy statue possibly coming to life heavily implies to them that there is a possible supernatural explanation for the sound.

Many scholars discussing the *fantastique* agree that there is usually a supernatural intrusion in the assumed ordinary storyworld when reading a text of the genre. However, I would argue that it is not the intrusion of the supernatural that is common to all *fantastique* texts, but rather the ambiguous nature of the intrusion. I will thus be referring to the intrusion of the possibly supernatural incident in this thesis as the *ambiguously supernatural intrusion* or *ambiguously supernatural incident*. This is to say that the supernatural might be appearing in the *fantastique* text, *or* it could simply be the protagonist hallucinating or dreaming, but it is difficult for the reader to confirm that it is one or the other with certainty in *fantastique* texts. The idea I am suggesting here is most closely associated with that of Tzvetan Todorov. Todorov's structuralist approach in *Introduction à la littérature fantastique* argues that the ambigous nature of the supernatural intrusion in the *fantastique* causes hesitation for the reader. Though important for identifying the ambiguously supernatural incident as key to the *fantastique*, Todorov's line of argument focuses on the reader's hesitation as a response to the ambiguously supernatural incident more than the incident itself and is thus not entirely in keeping with the ideas being presented in this thesis. This will be unpacked further in the section, 'Hesitation versus the Ambiguously Supernatural Incident' (34).

Tzvetan Todorov and the idea of hesitation

Though Todorov has been listed in the table of writers defining the *fantastique* in Figure 1, it is worth discussing his ideas separately. This is firstly, because of the popularity of his claim in comparison to the others, and secondly, for his unique approach to defining the *fantastique* which focuses on the reader's responses to the text. Todorov focuses particularly on the ambiguous nature of the supernatural incidents in *fantastique* writing. His primary argument is that because of this ambiguity, the *fantastique* genre can be defined based on three criteria: 'l'hésitation du lecteur', 'hésitation…ressentie…par un personnage', and that the *fantastique* text is 'ni « poétique » ni « allégorique »' (36). Of these three, Todorov seems to regard the hesitation faced by the reader as particularly crucial to the genre, suggesting that the second condition is optional (38), and that the third condition also relies on the reader: 'il importe que le lecteur adopte une certaine attitude à l'égard du texte: il refusera aussi bien l'interprétation allégorique que l'interpretation « poétique »' (38) . This is to say that the reader *should* follow the rule of minimal departure when reading the *fantastique*, assume an ordinary storyworld when they begin reading, and therefore hesitate when the possibly supernatural incident occurs. The rule of minimal departure means that the reader would assume the world they are reading about to reflect their own (28), and thus not expect anything not possible in the ordinary world to occur in the text. Scholars discussing the *fantastique* following Todorov such as Helen Brown have also adopted a similar position, writing, ''La position du lecteur au départ n'est pas sans importance' (28).

As per Todorov, the reader's hesitation is meant to occur between a rational explanation for the possible intrusion of the supernatural in the real world in the text (*l'étrange*), such as it being a dream or the protagonist hallucinating, and a rationally inexplicable one (*merveilleux*), which suggests that the *fantastique* experience was real. Todorov uses a number of texts to illustrate this point, including Cazotte's *Le Diable Amoureux* (1772), Potocki's *Le Manuscrit Trouvé à Saragosse* (1815), Mérimée's *La Vénus d'Ille* (1837), and Gautier's *La Morte Amoureuse* (1836).

Todorov's theory remains influential. Eugnio Bolongaro, writing in 2014, summarised the role Todorov has played in discussions of the *fantastique*:

> Even a quick look at the most recent anthology of articles on the fantastic reveals that Todorov's contribution, while certainly subject to criticism, remains pivotal to the discussion; no new work has emerged to rival Todorov's essay, whose suggestiveness remains unsurpassed (Bolongaro 62).

Todorov's attempt at defining the *fantastique* is thus largely relevant in the present-day, both for its frequent use as the primary definition for the *fantastique* as a genre, and as the first scholar to explicitly acknowledge the unique characteristic of the *fantastique* being the ambiguity surrounding the possibly supernatural incident in the text.

Criticisms of Todorov's Hesitation

As suggested by Bolongaro, Todorov's definition has had its share of criticisms. These have included questioning whether any text involving uncertainty about the supernatural, e.g. Hamlet, becomes a *fantastique* text (Armand 265) and whether an over- or under-experienced reader's responses to a *fantastique* text would imply that the text is no longer a *fantastique* one if they do not correspond to what the emotion-evoking writing describes (Lem). Scholars have also occasionally remarked on Todorov's excessively descriptive approach to analysing the *fantastique*. Claire Whitehead, for example, writes, 'Todorov's investigation of the triggers for hesitation in the *fantastique* is incomplete because he shows greater interest in the events than in the devices used to present them' (4). I will focus on the most relevant criticism in relation to my thesis, which is Todorov limiting himself from exploring the reader's perspective when reading the *fantastique* even though he chooses to centre the reader's hesitation in his definition. He writes, 'Nous ne nous occuperons pas ici de la première fonction du fantastique [namely the hesitation of the reader] : elle relève d'une psychologie de la lecture assez étrangère à l'analyse proprement littéraire que nous tentons' (98). It is worth noting that

in this quotation, Todorov refers to the psychology of reading as a field too far-removed form literary analysis to take an interdisciplinary approach. While the two might have seemed too far apart when Todorov was writing *Introduction à la littérature fantastique* in 1970, in the present day, it is increasingly common for scholars to explore mental processes which occur when reading using cognitive literary theory.

Hesitation versus the Ambiguously Supernatural Incident

Given that Todorov's definition of the *fantastique* also singles out the ambiguity important to the possibly supernatural incident often featured in the genre, it is worth emphasising how the idea of the ambiguously supernatural incident differs from hesitation. As suggested by Lem's criticism mentioned here, Todorov's idea of hesitation assumes that all readers respond to the ambiguously supernatural incident in the *fantastique* in the same way. This thesis will investigate a reader's response to the *fantastique* in the form of visualisation, and as thought by Todorov, considers a reader's role to be valuable in the *fantastique*. However, unlike Todorov, it does not assume all readers will have similar emotional responses to the *fantastique*. As will be further unpacked in Chapter 2 (93), it is suggested that emotional response can vary greatly between readers. I am thus arguing that Todorov was accurate in identifying the unique value of ambiguity in the *fantastique*: however, this distinction of the *fantastique* from other genres based on the ambiguously supernatural incident should be in the *text content*; the ambiguously supernatural incident is characterised as such by how an element is introduced into the *fantastique* narrative which disrupts the rules of the assumed ordinary storyworld. Determining the ambiguity of the possibly supernatural incident thus does not depend on the reader. However, it is valuable to investigate how this ambiguity is processed by the reader compared to texts without ambiguously supernatural incidents. Based on this unique characteristic of the *fantastique* found in the text, the thesis argues that the reader's vividness of visualisation might have a broader range when reading a *fantastique* text as opposed to a non-*fantastique* text.

Visualisation and the Ambiguously Supernatural Incident

The primary hypothesis of this thesis is that the reader's vividness of visualisation should have a larger range of vividness compared to a non-*fantastique* text, caused by a notable spike as the ambiguously supernatural incident is introduced, and a drop right after the ambiguously supernatural incident. The spike should occur because of some or all of four primary factors: the perceptual strength of the ambiguously supernatural incident, the descriptive emotion-evoking writing, the kinaesthetic imagery used, and the deceleration of the kinaesthetic imagery. These four factors will be discussed in further detail in Chapter 2, 'What Makes Visualisation Vivid'? (93). There is substantially less research on what causes a drop in vividness. However, it could occur because of a combination of factors; One possible factor discussed is the reader's struggle to reconcile the ambiguously supernatural incident with the ordinary world initially presented in the text. As will be further unpacked in Chapter 2, the absence of some or all of these four factors following could also further contribute to the hypothesised drop. This overlaps with Todorov's concept of the reader's hesitation; both present the idea of the reader temporarily struggling with how to fit the *fantastique* with the ordinary world they assumed the story was initially set in. However, the justification for the drop occurring is not limited to this struggle. For example, it is not necessary that the reader hesitates between the *étrange* and *merveilleux*; they could categorise the ambiguously supernatural incident as one or the other, but still have a drop in vividness caused by them not being entirely convinced by their categorization because of the ambiguously supernatural incident, which may in turn affect their interest in the story.

The value of visual imagery in the fantastique

Visualisation is key to the ambiguously supernatural intrusion unique to the *fantastique*. In his article 'Maupassant et la vision fantastique' (1999), Laurent Dubreuil highlights the key role of the visual in the genre.

> Le fantastique *est d'abord une affaire de vision*, il s'élabore au plus près du processus de l'apparaître, il a trait à la sortie et l'entrée dans l'ombre, il suit ce visible qui à la fois se tapit dans sa cache d'invisibilité et va se rendre au plus haut point visible. (1)

Dubreuil emphasises how the appearance and disappearance of what is being referred to as the ambiguously supernatural incident largely depends on the visual. The primarily visual nature of the *fantastique* is often evident from the titles of *contes fantastiques* themselves, e.g. *La Vision de Charles XI*, *Apparition*, *Une Heure ou la Vision*, and many others. The protagonist often sees the *fantastique* trigger at the centre of the event, e.g. the man in *Lui ?* or Clarimonde in *La Morte Amoureuse*. In certain instances, the *fantastique* creature is only seen and not heard or touched, such as in *Lui ?*. The ambiguity of the possible supernatural incident is often based on the sudden appearance and disappearance of the *fantastique* trigger. The following table provides examples of how the *fantastique* creature is *seen* by a character in each text in my corpus.

Text	Author	Quote
Une Heure ou La Vision	Charles Nodier	'Un adolescent d'une figure angélique me salua d'un regard humide et lumineux, et disparut dans la foule…je le vis encore (306)
Inès de Las Sierras		'Au même instant, nous discernâmes dans la partie la moins éclairée de la salle, un blanc fantôme qui courait vers nous d'une incroyable rapidité, et qui, parvenu à notre portée, laissa tomber son linceul… Jamais beauté plus accomplie n'avait frappé mes regards' (131)
La Cafetière	Théophile Gautier	'Tout à coup le feu prit un étranger degré d'activité ; une lueur blafarde illumina la chambre, et je vis clairement que ce que j'avais pris pour de vaines peintures était la réalité' (4)
La Morte Amoureuse		Je levai par hasard ma tête, que j'avais jusqu-là tenue inclinée, et j'aperçus devant moi, si près que j'aurais pu la toucher, quoique en réalité elle fût à une assez grande distance et de l'autre côté de la balustrade, une jeune femme d'une beauté rare et vêtue avec une magnificence royale' (527)
La Vision de Charles XI	Prosper Mérimée	'Une assemblée immense couvrait les bancs […] cette multitude de faces humaines, qui paraissaient lumineuses sur un fond sombre, éblouissaient tellement les yeux […] Ainsi un acteur vis-à-vis d'un public nombreux ne voit qu'une masse confuse, où ses yeux ne peuvent distinguer un seul individu' (469)
Apparition	Guy de Maupassant	'Une grande femme vêtue de blanc me regardait, debout derrière le fauteuil où j'étais assis une seconde plus tôt.' (784)
Lui ?		'Je pris une bougie pour aller l'allumer au foyer, lorsqu'en jetant les yeux devant moi, j'aperçus quelqu'un assis dans mon fauteuil, et qui se chauffait les pieds en me tournant le dos.' (872)

Figure 3

Figure 3 illustrates how frequently visual imagery is encouraged by the text imagery when reading the *fantastique*. The primary hypothesis states that at the ambiguously supernatural intrusion such as those mentioned in the Figure 3, the reader's vividness of visualisation should increase. As stated in the 'Definitions' section of the Introduction (13), 'vividness' is understood in this thesis to refer to the extent to which a reader feels their visualisation is clear and they feel that the event is occurring as if it were veridical perception.

It can be argued that all texts have some degree of text imagery intended to elicit visual imagery. However, not all readers visualise with the same degree of vividness. These differences in vividness can be caused by components both within the text and external factors relating to the reader's visualising ability, their comprehension of the text, their personality traits, etc. Such external factors will be discussed in detail in Chapter 1 (47). While vividness might fluctuate across a fictional text for several reasons (to be unpacked in Chapter 2, 93), it might be particularly valuable to the *fantastique* in relation to the ambiguously supernatural incident.

Investigating the vividness of visualisation is valuable in relation to the ambiguously supernatural incident in the *fantastique* because this incident may cause vividness to rise and subsequently drop, both more noticeably than in a non-*fantastique* text. The ambiguously supernatural intrusion, if visualised by the reader, could increase their vividness of visualisation at that point compared to the rest of the text. As suggested through the section 'Negative Emotions' (22), emotion-evoking writing often plays a key role in the ambiguously supernatural incident. In some *contes fantastiques*, the ambiguously supernatural incident is also highly perceptually strong (e.g. *La Morte Amoureuse*) and contains movement (e.g. *Inès de Las Sierras*, *Une Heure*, *La Vénus d'Ille*) or decelerated movement (*La Morte Amoureuse*) as a key feature. All four of these components have been suggested to heighten vividness of visualisation, as will be further discussed in Chapter 2. Other non-visual text imagery, e.g. the auditory imagery encouraged by footsteps suggested to belong to a statue come to life in *La Vénus d'Ille* could also contribute towards vivid visualisation at the key moment with the ambiguously

supernatural incident. This increase in vividness at the moment of the supernatural intrusion could then be followed by a significant drop in vivid visualisation. The ambiguously supernatural incident may cause a reader to put in more cognitive effort towards understanding the events in the narrative, which could possibly reduce their vividness of visualisation. It is likely that the ambiguously supernatural incident would thus create a more extreme pattern of increased and decreased vivid visualisation as compared to non-*fantastique* texts. When reading a *fantastique* text, a reader should therefore have a larger range of vivid visualisation than when reading a non-*fantastique* text. An experiment was conducted to investigate this hypothesis.

The Experiment

I investigated the role of vivid visualisation in the *fantastique* by conducting an experiment. The experiment to be discussed across Chapters 4 and 5 was conducted using two texts written by Guy de Maupassant, *Apparition* (1883) and *Lui* (1883). The participants were randomly assigned to an experimental or control group. In the experimental group, participants were asked to read the original text of either *Lui ?* or *Apparition*. The text was divided into multiple segments, each consisting of around 100-300 words. After each segment, participants were asked to rate how vividly they visualised the contents of the segment they read on a scale of one to five, based on Marks' 1973 VVIQ scale. The control group followed the same procedure, but their version of *Lui ?* or *Apparition* was edited to eliminate the ambiguously supernatural incident. There were three principal hypotheses: the first was that those in the experimental group would have a larger range of vividness ratings across the text than those in the control group. Related to this first hypothesis, it was thought that participants would report a noticeable spike in vividness when reading the ambiguously supernatural incident, and a noticeable drop when reading what follows the ambiguously supernatural incident. There were other minor hypotheses relating to the relationship between the readers' individual differences and their vividness ratings which will be discussed in Chapter 4 (225). Additional data were also collected to

investigate the possible role of individual personality and visualisation skills in vividness when reading fiction. The data gathered includes responses to questions about age, gender, the participants' experience reading the text, genre preferences and reading habits, the VVIQ, the OSIVQ (Object-Spatial Imagery Verbal Questionnaire), and the Tolerance of Ambiguity Scale.

The Use of Translations

Notably, this thesis relies a lot on English translations of the French corpus. Since the Lancaster Norms has a word bank containing ratings for 40,000 words as compared to the substantially smaller French word banks (Desrocher's (2009) word bank of 3000 words, Gonthier's (2009) word bank of 1,760 monosyllabic words), English translations of all texts are being used rather than the original French to create the perceptual strength graphs being used across Chapters 2, 3, and 5. However, the results are likely to mirror those of a French word bank to a significant extent. A study conducted by Rofes et al (2017) assessed the correlation between imageability word banks in different languages. Though unfortunately their sample did not feature a French imageability study, Rofes et al still found the average correlation across 12 different languages to be a moderately positive 0.53. Additionally, Krasny and Sadoski (2008) asked bilingual native English speakers to read a story in English or French and rate it for vividness of imagery and emotional response.

Correlations of paragraph ratings between English and French story versions

English/French story title	Imagery	Affect
'A Secret for Two' and 'Two Were Left' combined / 'Un secret pour deux' and 'Deux qui restaient' combined	0.59**	0.79**
'A Secret for Two' / 'Un secret pour deux'	0.66**	0.87**
'Two Were Left' / 'Deux qui restaient	0.81**	0.69**

Figure 4

All of the figures seem to show moderate to strong positive correlations for imagery vividness and affect across the two languages. The positive correlation between English and French speakers for imageability and emotional responses support the idea that imageability and emotional responses

associated with French texts might be replicated to a great extent with English translations. Though the English translation of these texts were run through the Lancaster Norms, the perceptual strength ratings gained should reflect those likely to be gained through a French imageability word bank of the same size.

The Corpus

The thesis corpus consists of eight texts. They are *Une Heure ou La Vision* (1806) and *Inès de Las Sierras* (1837) by Charles Nodier, *La Cafetière* (1831) and *La Morte Amoureuse* (1836) by Théophile Gautier, *La Vision de Charles XI* (1829) and *La Vénus d'Ille* (1837) by Prosper Mérimée, and *Lui ?* (1883) and *Apparition* (1883) by Guy de Maupassant. All texts will be analysed from a theoretical standpoint to suggest why the vividness of visualisation is likely to be inconsistent for a reader of any of these texts. *Lui ?* and *Apparition* will additionally also be used to gather empirical data in the experiment.

The first reason for choosing this corpus of *fantastique* fiction was the range it offers. *Une Heure ou la Vision* and *Lui ?* are nearly eighty years apart. Based on the title of Pierre-George Castex's book, *Le Conte Fantastique en France de Nodier à Maupassant* (1956), this corpus covers the earliest and latest examples of *fantastique* writing within the nineteenth century. The aim of the corpus was to choose a set of texts which have been constantly classified as *fantastique* by scholars despite their very different styles of writing. As mentioned earlier, the changes which took place in *fantastique* fiction across the nineteenth century are reflected in the different styles of the texts, including the increased description of the *fantastique* creature in texts written in the first half of the nineteenth century, e.g. those of Gautier and Mérimée (18) compared to the minimal descriptions in Maupassant's *fantastique* texts. Additionally, the texts chosen for this corpus from the first half of the nineteenth century are largely *nouvelles*, while both Maupassant texts are usually classified as *contes*. The difference between *contes* and *nouvelles* has been established earlier in the Definitions section (13).

This corpus contains five *contes* and three *nouvelles*. The thesis argues that both *contes* and *nouvelles* contain similar ambiguously supernatural incidents which can be used to define the *fantastique*.

Defining the ambiguous supernatural incident in different texts

Although every text in this corpus contains an ambiguously supernatural incident, this incident is presented in broadly one of two ways. The ambiguously supernatural incident is being defined as any part of the text that seemingly breaks the rules of the assumed ordinary storyworld (28). There are broadly two types of text descriptions relating to the ambiguously supernatural incident. The first type is when the ambiguously supernatural incident is a concentrated moment in the text, occurring over a few hundred words. Examples of this from the corpus include *Lui ?* and *La Vénus d'Ille*. *Lui ?* is a 2,500-word *conte* and tells the story of a young man who believes he sees someone sitting in his chair one night before reaching out to find no-one there. The ambiguously supernatural incident comprises 215 words. *La Vénus d'Ille*, a *nouvelle*, on the other hand, tells the story of a Parisian archaeologist who travels to a small town where a statue of Venus has recently been found. M de Peyrhorade, his host, keeps the statue in his garden and is preparing for the marriage of his son, Alphonse, to take place in a few days. On the day of the wedding, Alphonse places his wedding ring on the outstretched finger of the statue while playing tennis, and later claims to the narrator that he cannot remove it as 'elle a serré la doigt' (751)**.** Later that night, the narrator hears heavy footsteps on the stairs. Alphonse is found dead the next morning. *La Vénus d'Ille* is a *nouvelle* of approximately 22,000 words, almost ten times the length of *Lui ?*. The ambiguously supernatural incident is described in 145 words.

The second type of text description relating to the ambiguously supernatural incident is when the incident either takes up more space in the narrative or breaks the rules of the assumed ordinary storyworld in different ways more than once. The first book of Nodier's *Inès de Las Sierras* (1837) for example, describes the journey of three travelers who spend the night at the castle Ghisimondo,

where a woman named Inès was murdered two hundred years ago. At midnight, a woman appears claiming to be Inès. Inès dines with the travellers, talks to them, and sings and dances for them. The encounter carries on over several pages of the text roughly 4,000 of 15,000 words. In Théophile Gautier's *La Cafetière*, similarly, the ambiguously supernatural incident is introduced near the beginning of the text and then takes up 1,780 of roughly 2,600 words. It is worth noting that passages where the ambiguously supernatural incident is described for more of the text often features the *fantastique* creature gradually appearing to have more humanlike characteristics after initially disrupting the rules of the ordinary world as compared to when a briefer incident is featured. In *Inès de Las Sierras*, for example, Inès's conversation and dining with the characters makes her appear more human. In *La Morte Amoureuse* which similarly contains three separate instances of the laws of the assumed ordinary storyworld being disrupted, Romuald begins living with Clarimonde between two of the incidents.

The outlined differences in description of the ambiguously supernatural incident are likely to lead to differences in how it is processed by the reader. For example, when the ambiguously supernatural incident takes up more space in the text, it offers the reader the opportunity to get used to the deviation from the rules of the ordinary world that initially occurred with the introduction of the ambiguously supernatural incident. One could then ask whether this difference affects vividness of visualisation. This thesis argues that there is little difference in the hypothesised pattern of vivid visualisation despite notable differences in the text description of the ambiguously supernatural incident. The hypothesis suggests that, when reading the *fantastique* there should be a notable spike in the reader's vividness of visualisation when an ambiguously supernatural incident occurs, a notable drop after, and subsequently, a larger range of vivid visualisation as compared to a non-*fantastique* text (39). This does not need to be one sole point in the text. It can be, as is the case for *Lui ?*, and *La Vénus d'Ille*. In *La Vision de Charles* and *La Morte Amoureuse*, however, there is more than one point at which the rules of the ordinary world are disrupted in different ways. In *Inès de Las Sierras* and *La Cafetière*, there is an initial point of the supernatural intrusion, after which the character is humanised until their disappearance, which involves a disruption of the rules of the ordinary world again. The reader's

vividness of visualisation is being thought to spike and subsequently drop at every point containing an ambiguous supernatural intrusion. Multiple notable spikes and drops in texts such as *La Morte Amoureuse* would reflect a broad range of vividness similar to one notable spike and drop in texts such as *Lui ?*. Vivid visual imagery is likely to occur in text content with high perceptual strength, emotion-evoking writing, kinaesthetic imagery, or deceleration, or often a combination of more than one of these factors; this will be expanded upon further in Chapter 2 (93) in relation to specific texts in the corpus with different kinds of ambiguously supernatural incidents.

Despite the two different types of ambiguously supernatural incident descriptions outlined here, the drop after the ambiguously supernatural incident should similarly occur. In both cases, the drop in vividness should occur because of the reader's increase in cognitive effort as they try to understand the ambiguously supernatural incident. In the first type of ambiguously supernatural incident, the brief text description offers the reader little to use to understand the incident. In the second type, the reader's vividness should drop as they cannot reconcile the initially suggested deviation from the rules of the ordinary world with the humanisation of the usually female source of the *fantastique*¸as described here. It is thus possible that, in both cases, the reader is compelled to put in more effort towards understanding the events, and the increased effort to understand contributes towards their drop in vividness of visualisation. Additionally, for both types of ambiguously supernatural incidents, the absence of the four factors argued to contribute towards vivid visualisation in Chapter 2 (perceptual strength, emotion-evoking writing, kinaesthetic imagery, decelerated kinaesthetic imagery) might additionally contribute towards the drop following the ambiguously supernatural incident.

As mentioned earlier in this chapter (10), vividness of visualisation will be investigated in this thesis using both theoretical approaches and an experiment. The corpus chosen for my experiment from this larger selection are the two Maupassant texts, *Lui ?* and *Apparition*. As mentioned here, *Lui ?* contains a briefly described ambiguously supernatural incident. In *Apparition*, the incident is brief

but the source of the ambiguously supernatural incident, a woman, is humanised over the segments which follow. Several criteria were taken into account when choosing the two texts for the experiment, which will be elaborated upon in Chapter 4 (225). The purpose for running the experiment with two texts rather than one was to investigate whether the hypothesis is applicable to more than one type of *fantastique* text; as will be further unpacked in Chapter 4 (232), despite both being *contes* written by Maupassant, there are notable differences in the text content of *Lui ?* and *Apparition*. It was important not to use texts that were more than two to three thousand words long, as the design required the participants to rate how vividly they visualised the segment they had just read after every two or three paragraphs, and it would be a significantly more tiring exercise with a long text.

The most important criterion was to be able to create control texts which effectively remove the *fantastique* or ambiguously supernatural incident. This was most easily achievable with the two Maupassant texts, both for their short length and the brief descriptions of the *fantastique* incident. Additionally, though they are both from the second period of *fantastique* writing and similar in style, the *fantastique* triggers are different. In *Lui ?*, it is 'quelqu'un assis dans mon fauteuil' (873), and in *Apparition*, it is 'une grande femme vêtue de blanc' (784). *Apparition* therefore has slightly more descriptive detail on the appearance of the *fantastique* trigger than in *Lui ?*. *Apparition* also includes a haptic encounter between the male narrator/protagonist and the female apparition in which he combs her hair. In *Lui ?*, there is no physical contact between the narrator and the *fantastique* trigger. It was valuable to investigate how this difference in haptic engagement in the text description could influence visualisation for the reader.

Thesis Structure

Following this introduction, the first chapter of the thesis, 'The Influence of Non-Text Elements when Visualising the *Fantastique*', considers five factors outside of text imagery which are likely to affect a reader's visualisation. These include their baseline ability to visualise, their understanding of

sociocultural text cues found in the text imagery, their predictive processing abilities, differences in paratext, and their ambiguity tolerance. The chapter will end with a discussion on what is meant in this thesis by the term 'reader'.

The second chapter, 'What Makes Visualisation Vivid?' illustrates the role of perceptual strength, emotion, and movement in making a mental image vivid when reading. Examples are used from six of the eight *fantastique* texts of the corpus. Using these factors, I argue at which points the reader is theoretically likely to visualise more vividly when reading a *fantastique* text.

The third chapter considers the role of auditory and haptic imagery when reading. Though I have chosen to focus primarily on visualisation, it is important to consider how the other senses contribute both to the ambiguity of the supernatural presence in the *fantastique*, as well as how the ambiguity is visualised. Six of the eight texts (*Une Heure ou La Vision* (1806), *Inès de Las Sierras* (1837), *La Cafetière* (1831), *La Morte Amoureuse* (1836), *La Vision de Charles* (1829), *La Vénus d'Ille* (1836)) are used across Chapters 2 and 3 for analysis.

The fourth chapter justifies the experiment design in detail and then describes the results obtained.

The fifth and final chapter then combines the results found in Chapter 4 and the theories established in Chapters 2 and 3 with an analysis of the two Maupassant texts used in the experiment to indicate the extent to which the theoretical hypotheses were supported about how the *fantastique* is visualised.

Chapter 1

The Influence of Non-Text Elements when Visualising the Fantastique

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Introduction

The purpose of this thesis is to investigate how a readers' vividness of visualisation when reading a *fantastique* text may differ from reading a non-*fantastique* text. The primary hypothesis is that the unanticipated introduction of the ambiguously supernatural incident in the assumed to be ordinary storyworld commonly featured in *fantastique* writing causes the reader's visualisation to be more inconsistently vivid when reading a *fantastique* as compared to a non-*fantastique* text; as discussed in the introduction (39), their visualisation would be heightened by the ambiguously supernatural incident but could then also decline sharply soon after because of the possible cognitive struggle of the reader to classify it. The next two chapters contain an in-depth cognitive literary analysis of a selection of works by Charles Nodier, Théophile Gautier and Prosper Mérimée. Chapter 2 discusses how perceptual strength, emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery found in the corpus increase a reader's vividness of visualisation. Chapter 3 similarly discusses how auditory and haptic imagery across the corpus feed into vivid visualisation. The fourth chapter describes the methodology and results of the reading experiment using Maupassant's *Apparition* and *Lui ?* (1883) conducted on 64 participants, and the final chapter synthesises the findings of the experiment with the discussions conducted in Chapters 2 and 3 using *Lui ?* and *Apparition*.

The corpus of this thesis contains eight texts written in the nineteenth century; it is worth noting that these texts have thus been read by nineteenth, twentieth, and twenty-first century readers. However, given the vast number of factors that could have affected past readings of these texts, this thesis will focus on how present-day readers are likely to visualise a *fantastique* text. As the chapter outlines indicate, majority of this thesis relates to the impact of the text content in a *fantastique* work on a reader's vividness of visualisation, that is to say how the words are mentally processed by the reader. However, text content is not the sole determinant of a reader's vividness of visualisation when engaging with a *fantastique* work. There are several of important elements external to text content, or 'non-text elements', as the title suggests, which could increase or decrease a reader's ability to visualise

text content vividly. Non-text elements include, firstly, individual differences between readers. The differences between readers in their baseline visualising abilities, ability to interpret sociocultural references in these texts, and ambiguity tolerance are the most important components which could possibly influence their vividness of visualisation when reading the text content of a *fantastique* work. Other factors could include different personality traits, attention, and motivation for reading. While further exploration of these other factors in relation to visualisation would be valuable towards understanding how readers mentally process works of fiction, they relate less directly to the *fantastique* and will thus not be addressed further here.

Beyond individual differences between readers, there are also differences worth considering which are more dependent on the reader's environment, such as the medium the present-day reader uses to read a text (hard copy, computer, e-reader) which could cause the reader to have a less focused reading experience (computer), or lack a haptic map of their text (computer and e-readers), possibly reducing their vividness of visualisation. Additionally, it is important to explore the role played by the reader's predictive processing abilities; that is, their ability to accurately predict the ambiguously supernatural incident will occur in the *fantastique*; being able to do so could minimise the usually unexpected nature of the ambiguously supernatural incident, and thus possibly lower their vividness of visualisation. Beyond these mentioned elements, there are also a number of more minor components which could affect the reader's vividness of visualisation; Xie et al (2016) for example found that the hardness of the chair a reader is sitting on affects recall and creative thinking abilities. One could also similarly consider other individual and environmental components which vary for different readers, such as the noise level where they are reading (Engbert and Kliegl 2003), whether their reading flow is interrupted at some point or not, whether they are reading in a second language or their native language (Hayakwa and Keysar 2018), etc. However, there are too many such components which can combine in various different ways to create different reading experiences, and there is no research on whether and to what extent these various combinations might specifically affect a reader's vividness of visualisation. This chapter will therefore focus on the five key non-text elements mentioned earlier

which are most likely to have an influence on a reader's visualisation, particularly in relation to the *fantastique*: their baseline ability to visualise, their awareness of the sociocultural text cues, their ability to predict text content correctly, the medium on which they are reading, and their tolerance to ambiguity. These five components were also taken into consideration for the experiment conducted for this thesis. Each of the five sections will explain how the factor was accounted for, and some results from the experiment will be cited as required. The results will be presented in their entirety across Chapters 4 (225) and 5 (294).

Baseline Ability to Visualise

The extent to which a reader can create vivid mental images when reading fiction is dependent on their baseline visualising ability. One of the earliest researchers to establish that individual differences exist in the ability to visualise using a definitive scale was David Marks (1973) who created the Vividness of Visual Imagery Questionnaire (VVIQ), a self-reporting test in which participants are asked to rate their vividness of visualisation on a scale between 1 and 5 for sixteen different one-line prompts. When Marks introduced the questionnaire in his 1973 paper 'Visual Imagery Differences in the Recall of Pictures', its purpose was to categorise his participants into "good" and "poor" visualisers to then assess any possible differences in the recall ability of the two groups. The average of the eighteen lowest-scoring participants was 1.64 out of 5, while that of the eighteen highest-scoring participants was 3.25. Since 1973, the VVIQ has been used in hundreds of studies to distinguish between "good" and "poor" visualisers. For example, a 2022 study investigating whether visual imagery vividness has a genetic basis (Day et al) used the VVIQ was used to assess the participants' visualising ability. Numerous other recent studies have used the VVIQ to assess varying imagery ability in relation to, for example, the 'steep discounting of future rewards' (Parthasarathi et al 2017), the abilities of orthodontic students versus non-orthodontic students (Smyth et al 2019), and whether there is a positive correlation between higher visualisation ability and creative ability (Jankowska and Karwowski

2020). The VVIQ has repeatedly established the significant individual variance between individuals in their ability to visualise. This variance is also evident from the results of my own experiment, in which the VVIQ average per participant ranged from 1.88 to 5.

Beyond a higher or lower ability to visualise, recent research (Zeman et al 2020) has suggested less that 2.6 percent of the population have an incredibly heightened ability to visualise (hyperphantasia), and 0.7 percent have an almost non-existent ability or even an absolute inability to visualise (aphantasia). There seem to be to date very few methods to assess whether an individual has one of these conditions: the primary method seems to be using the VVIQ (Zeman 2015, Wicken 2021, Dance 2022, Pounder 2022). Some researchers (Zeman, Wicken) acknowledged the self-reporting nature of the VVIQ might not be sufficient, and therefore combined it with another imagery test, e.g. the "Imagery Questionnaire" used by Zeman et al, or a binocular rivalry task[5] (Wicken). There seems to be a lack of consensus however about the point at which one can be considered to have aphantasia. Pounder et al (2022) suggested those who scored less than a total of 25 of the possible 80 on the VVIQ had aphantasia, but also identified a subgroup 'who reported a severe deficit in visual imagery' (180) who scored 16 (the minimum on the VVIQ). Wicken et al (2021) on the other hand used 32 on the VVIQ as a cutoff point. Zeman et al (2020) suggests those who score between 16-23 out of the total possible 80 have aphantasia while those who score between 75 and 80 have hyperphantasia (428). While it is unclear which of these cut-off points are best to determine aphantasia and hyperphantasia, it illustrates the high use of the VVIQ to assess baseline vividness, as will be done for the experiment. There is thus to date a significant body of research illustrating the vast individual variance in visualising abilities. The question then becomes how these abilities might be applied to the mental images formed by readers when engaging with fiction.

[5] This refers to having a different stimulus presented to each eye; the participant is asked to imagine one of the stimuli before the display; the more they perceive that stimulus in the display, the higher their ability to visualise (Pearson 2013).

Reading fiction with varying visualising abilities

Having established the significantly varying range of visualisation ability from aphantasia to hyperphantasia, I shall now specifically address how and to what extent baseline differences in the ability to visualise can influence the vividness of visual mental images formed based on text content when reading fiction.

Chapter 2, 'What Makes Visualisation Vivid?', describes four text features which have been suggested to contribute to heightened vivid visualisation: high perceptual strength, emotion-evoking writing, kinaesthetic imagery, and deceleration of kinaesthetic imagery. However, the baseline ability to visualise should supersede the vividness dependent on text content for these factors. This is to say that a reader with aphantasia would not form visual mental images even when presented with highly perceptually strong or highly emotional content because of their low ability or absolute inability to form mental images at all. In relation to Zeman and the other researchers' suggested relationship between the VVIQ ratings and aphantasia, an individual who scores 32 (the maximum cutoff point ever suggested to classify someone with aphantasia) out of 80 on the VVIQ does not see any of its prompts as more than 'vague and dim' at best, and 'No image at all' at worse (Marks 1973)[6]. The most common test for aphantasia besides the VVIQ is to ask participants to visualise an apple (Regan 2021). 'Apple' has a rating of 4 out of 5 for perceptual strength in the Lancaster Norms (2020), an English-language word bank with ratings for visual perceptual strength (among other modalities). 'Pomme' similarly has a rating of 7 out of 7 in Desrocher's French database of perceptual strength and frequency. An individual with aphantasia is suggested to be unable to visualise the fruit despite its usually high perceptual strength.

[6] Marks' VVIQ is a 16-point questionnaire. Each question asks the participant to visualise a prompt and rate it for vividness between 1 and 5, with 1 being defined as 'No image at all, you only "know" that you are thinking of the object', and 5 being, 'Perfectly clear and as vivid as normal vision'.

It is more difficult to assess how hyperphantasia might be applied across a fictional text: would a reader visualise every segment of the passage with the highest possible vividness even if they are not particularly emotionally captivated by the same? There is little research on this, but I would hypothesise that the higher one's ability to visualise, the more vivid their visualisation when reading fiction. My own experiment asked participants to rate their vividness on the VVIQ scale when reading the main text, and to additionally complete the original VVIQ test as a measure for their baseline vividness. The results suggest that there is a moderately strong positive correlation between the participants' VVIQ ratings and their ratings on the VVIQ scale when reading the main text (0.68). This supports the idea that the stronger a baseline ability to visualise, the more vivid the reader's average visualisation is when reading fiction.

A useful question to consider in relation to the positive correlation between visualising ability in general and visualising when reading fiction is how it affects a reader's *range* of vividness. The primary hypothesis of this thesis is that the reader's vividness of visualisation has a larger range when they read a *fantastique* as opposed to a non-*fantastique* text, mainly caused by a notable spike during, and a notable drop after the ambiguously supernatural incident (39). The results from my own experiment suggest that those with very high and very low VVIQ scores had consistently high and low ratings respectively with little range when reading the main text. One participant who scored a low total of 30 on the baseline VVIQ (thus suggested to have aphantasia as per Zeman's classification (2020)) only rated each main text segment (*Lui ?*, control group) with either 1 or 2 out of the possible 5. On the other end of the spectrum, a participant who scored 77 on the VVIQ rated every text segment with either 4 or 5 (*Apparition*, control group). Perhaps those classified to have aphantasia or hyperphantasia as per the VVIQ are unable to break out of "vague and dim" images or visual imagery "as vivid as normal vision", and therefore, irrespective of text content, have a lower range in both cases. This idea will be considered further with the entire body of results in Chapters 4 and 5.

There are a number of articles which provide anecdotes and qualitative comments about reading with aphantasia; they generally suggest that the inability to form mental images when reading reduces enjoyment. In her article, 'The Struggle of Reading with Aphantasia", Emily Giulio suggests that those unable to create mental images when reading enjoy engaging with fiction significantly less for the following reasons, based on her conversations with friends who have aphantasia (though she does not state how they have been classified as such).

> Reading fiction is boring. Nonfiction/fact-based books or anything that informs is more enjoyable to read.
>
> Reading descriptive writing is unbearable. Simplistic writing is more manageable. Action and plot are the main draws.
>
> Reading is only pleasurable when the story prioritizes emotional impact (character's inner thoughts and feelings, relationship-driven dialogue). ('The Struggles of Reading with Aphantasia')

Weibel et al (2011) found a positive correlation between reader's visualising abilities and their ratings for 'presence' and 'enjoyment' when reading a narrative text. The open responses in my own experiment however do not seem to indicate a difference in enjoyment as much as in empathy with the character. The three participants with the lowest average vividness ratings when reading the f *fantastique* text are as follows.

Average Vividness Rating (out of 5)	Response to “Décrivez votre ressenti par rapport à ce texte”
1.27	C’était intriguant, mystérieux
1.64	Banal
1.64	Le texte est inquiétant. La perspective en première personne occupe l'attention. On écoute le narrateur plus qu'on n'est attentif à ce dont il parle.

Figure 1(a)

To compare, the three participants with the highest average vividness ratings had the following open responses.

Average Vividness Rating (out of 5)	Response to “Décrivez votre ressenti par rapport à ce texte”
5.00	Inquiètude
5.00	Je m'identifie au personnage et il me semble que je ressens les mêmes hallucinations que lui.
5.00	J’ai beaucoup apprécié la lecture de ce texte, les mécanismes de bifurcation du réel au fantastique. Le procédé graduel d’installation du doute et de la crainte. La réflexion qu’amène le texte sur la nature de l’Homme.

Figure 1(b)

Two differences in the few comments in Tables 1 and 2 are in empathy and appreciation of the text. The question was intentionally kept as broad as possible to encourage participants to write as much or as little as they wanted. There are therefore examples in both cases of similar one-word responses. However, the responses in Table 2 relate more to personal feelings, e.g. ‘*Je m’identifie* au personnage’ rather than statements regarding what the text tries to achieve, e.g. ‘La perspective en

première personne occupe l'attention'. Every participant who explicitly stated that they related to the protagonist all scored above 3.5 as their average vividness of visualisation. Table 2 also contains a positive comment 'J'ai beaucoup apprécié la lecture de ce texte' while Table 1 has a comment stating 'banal'. These observations could of course just be a coincidence which would not be replicated with a larger sample size. However, these results suggest a correlation between higher vividness of visualisation and empathy. Overall, existing research and the results from my experiment suggest that a reader's baseline ability to visualise dictates their ability to form visual images when reading fiction and affects to some extent their empathy with and possibly their enjoyment of the text.

Accounting for individual visualising differences in the experiment

Given its influence on one's reading experience, it was important to take a reader's baseline visualising abilities into account when conducting the experiment. As mentioned in the previous section, the experiment required readers to complete the VVIQ as a baseline measure for their ability to visualise vividly. An interesting question to consider at this point is whether 'aphantasia' refers solely to a reader's visual imagery, or their inability to also similarly use their other sensory imagery (e.g. auditory, haptic, gustatory). As will be discussed in Chapter 3, 'Auditory and Haptic Imagery in the *fantastique*', there are numerous auditory and haptic imagery cues in the *fantastique* texts in this corpus which feed into the visual imagery of the ambiguously supernatural incident. There is little research on the extent to which a lower or higher ability to visualise correlates with the other senses; however, Palermo et al (2022) drew a distinction between those with 'object aphantasia' and 'spatial aphantasia'. They used the OSIQ (Blajenkova et al 2006) and found certain participants scored very low only for the object-imagery questions, and some scored low only for the spatial-imagery questions. This suggests that even within those with (visual) aphantasia, there are individual differences in which aspect of visualisation they struggle with. Without additional research with other sensory modality-related questionnaires, is difficult to say to what extent those with 'object aphantasia' also suffer from auditory or haptic aphantasia, but Palermo et al's results encourage a hypothesis that not all

senses might be equally affected given that there is variation even within the domain of visual aphantasia. My experiment also asked readers to complete the OSIVQ, as firstly, an additional measure to assess visualising ability, and secondly to assess if there is any difference in the way different types of visualisers (object, spatial, verbal) responded to the main text.

This section has established the notable role played by individual differences in the reader's ability to visualise text content. Existing research as well as open responses from my own experiment suggest that readers with higher baseline visualisation abilities are likely to have higher vividness when reading a fictional work.

Sociocultural Context

The previous section mentioned that a common test for aphantasia is asking a person to visualise an apple (Regan 2021). A possible reason for an apple having high perceptual strength in multiple word banks is how common the fruit is in everyday life. The reader needs to know what an object is to visualise it. Desrocher's scale rates 3600 French words for both perceptual strength and subjective frequency[7]. The less frequent words were also often lower in perceptual strength, e.g. the lowest-rated word for frequency is 'sbire' (1.07) and it has a perceptual strength of 1.39. The word with the highest subjective frequency is 'merci', however the noun with the highest subjective frequency is 'maison', 6.43 for frequency and 6.67 for perceptual strength.

There are numerous studies suggesting a contribution of visualisation to comprehension than that of comprehension to visualisation (Gambrell et al 1986, Joffe et al 2007, Boerma et al 2016). Boerma et al (2016) for example conducted an experiment in which children were asked to read a book with or without pictures and suggested that 'children with higher mental imagery skills outperformed children with lower mental imagery skills on story comprehension' (1). However,

[7] Subjective word frequency refers to how common each participant thought a word was (Desrochers 2009)

comprehension is likely to be more crucial to visualisation than the other way around; if a word is not understood, it cannot be visualised. A study by Hayakwa and Keysar (2018) investigated whether reading in a foreign language reduces mental imagery. Participants were asked to either read in English (their native language) or Spanish (the foreign language). They were asked to rate their vividness prompts written in one of the languages on seven different modalities: the visual, the auditory, the kinaesthetic, the haptic, the olfactory, the organic, and the gustatory between 1 (no image) and 7 (perfectly clear). The results revealed an average vividness across modalities of 6.09 in the native language versus 5.89 in the foreign language. The following graph shows the results across the different modalities:

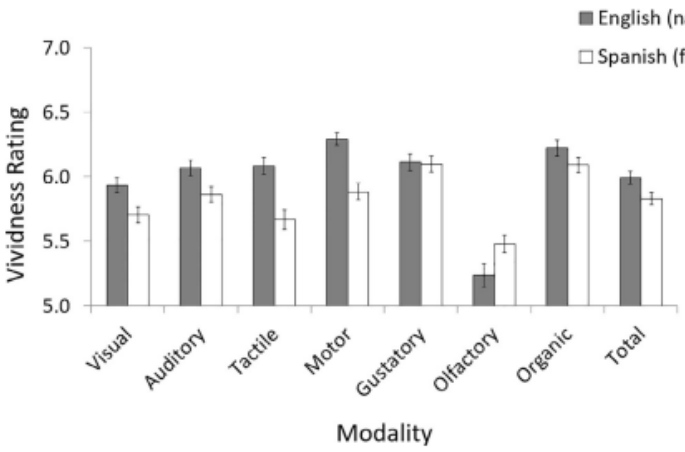


Fig. 1. Average vividness ratings of native and foreign language speakers across different modalities (1 = "no image", 7 = "perfectly clear"). Error bars display standard errors.

Figure 1(c)

The results of this experiment do not relate directly to a lack of comprehension for sociocultural references. However, it does suggest a positive correlation between easy understanding and vivid mental imagery. Hayakwa and Keysar themselves suggest that two possible explanations for the reduced vivid visualisation in the foreign language are the absence of access to episodic memories and the increased cognitive load of interpreting in the second language (13). Both these reasons are also applicable for a reader struggling to interpret an unfamiliar sociocultural cue; they are likely to have no perceptive memory to associate with the description or object, and in some cases, they might need

to put in more effort to understand what the cue refers to. All the *fantastique* works in my corpus were written in the nineteenth century. Some of these works contain references to objects and information which were likely to have been better understood and more accurately visualised by the original rather than the present-day readers. One could then question the extent to which present-day readers' possible inability to understand these references would lower their vividness of visualisation when reading one of the *contes fantastique* in my corpus.

Théophile Gautier and Prosper Mérimée's works usually contain more text instructions than those of Nodier and Maupassant; works such as *La Morte Amoureuse* (1836) and *La Vénus d'Ille* (1837) often describe the surroundings of the protagonist in detail. These details often involve typically nineteenth-century furniture and household objects which present-day readers might be unfamiliar with. One could consider, for example, Gautier's description of a shop in *Le Pied du Momie*, from which the first-person narrator purchases the mummy's foot.

> Le magasin de mon marchand de bric-à-brac était un véritable Capharnaüm ; tous les siècles et tous les pays semblaient s'y être donné rendezvous ; une lampe étrusque de terre rouge posait sur une armoire de Boule, aux panneaux d'ébène sévèrement rayés de filaments de cuivre ; une duchesse du temps de Louis XV allongeait nonchalamment ses pieds de biche sous une épaisse table du règne de Louis XIII, aux lourdes spirales de bois de chêne, aux sculptures entremêlées de feuillages et de chimères (855).

For a modern-day reader, a number of these references might not render a specific image, including 'Capharnaüm', 'armoire de Boule', and 'une duchesse du temps de Louis XV'. This is further supported by data from the Lancaster Norms (2020). What is worth considering here is that the norm calculations leave out less common words which are not included in the word bank. 11 of the 80 words including 'Capharnaüm', 'etruscan', 'Chimera', etc. from the earlier passage were not included in the norms. In comparison, the norms are likely to only leave out one to two words from any 200-word-sample written later, e.g. *Lui ?*, *Apparition*, *Etranger* (Camus), etc. Absence from the Lancaster Norms suggests that these words are not commonly used by present-day readers. For the nineteenth-century

reader, however, it is possible that such items were easier to understand and possibly visualise. Even within nineteenth-century readers, there were likely further variations based on their social class and education.

In some *fantastique* texts such as those of Mérimée, sociocultural context is valuable not just for description, but for the plot itself. Writers such as Castex have remarked on the imaginative but repetitive nature of Gautier's *fantastique* stories, 'Le conteur a conscience d'avoir trouvé une bonne formule, et il s'y tient' (231). Mérimée's *fantastique* works on the other hand, often had a grounding in the real world; *La Vénus d'Ille* resembled an existing myth about the Venus, often suggested to have been first written by William of Malmesbury in 1125. *La Guzla* was a selection of existing poetry from eastern Europe. *Lokis* was based on a Lithuanian folktale. *La Vision de Charles XI* was allegedly based on a real document as well. As Castex writes, 'Pour cette nouvelle histoire, du reste, Mérimée ne s'est pas mis en frais d'imagination. Il s'inspire d'un document conservé au Ministère des Affaires étrangères' (255). Beyond these origins, *La Vision des Charles XI* speaks of a Swedish king witnessing a gruesome vision which illustrates what would occur five years after his reign; the vision describes the execution of the assassin of the king five years after the reign of Charles XI. The execution was an event which occurred in 1792 that Mérimée and other nineteenth-century French readers were aware of but few, if any present-day readers would know. The text's conclusion reveals the identities of those in the vision as follows:

> Maintenant, si l'on se rappelle la mort de Gustave III, et le jugement d'Ankarstroem, son assassin, on trouvera plus d'un rapport entre cet évènement et les circonstances de cette singulière prophétie.
>
> Le jeune homme décapité en présence des états aurait désigné Ankarstroem.
>
> Le cadavre couronné serait Gustave III.
>
> L'enfant, son fils et son successeur, Gustave-Adolphe IV.

> Le vieillard, enfin, serait le duc de Sudermanie, oncle de Gustave IV, qui fut régent du royaume, puis enfin roi après la déposition de son neveu. (15)

This revelation, though important to the story is received by most present-day readers with no awareness of its historical context; they are unable to visualise any of the characters mentioned here, or connect it to the real-life assassination of Gustave III, the king of Sweden, by Ankarstroem. The concluding lines to *La Vision de Charles* merely give them the awareness that Mérimée is connecting the *fantastique* incident with an incident that occurred in the real world. In the nineteenth century on the other hand, Gustave III was still likely to have been quite well-known in spite of his assassination occurring over a century ago because of his reputation for being a Francophile and support for Louis XVI. Numerous biographies were published about his assassination in French in the nineteenth century, e.g. *Histoire de l'assassinat de Gustave III, roi de Suède* (Montor 1802), *Gustave III*, *roi de Suède 1746-1792 : Les couronnes sanglantes* (Léouzon 1861), and *Gustave III*, *roi de Suède et Ankarstroem, 1746-1792* (Nervo 1877). A nineteenth-century reader was therefore far more likely to have been able to visualise and understand the importance of the connection Mérimée attempts to make to Gustave III's assassination at the end of *La Vision de Charles XI*. The present-day reader's inability to understand the total significance of this ending however does not take away from the *fantastique* nature of the story. With or without their knowledge of Swedish history, the story describes a king walking into a room late at night and witnessing the ambiguously supernatural incident. The reader with average visualising abilities still visualises, 'un cadavre sanglant' (12), 'la grande salle… éclairée par une infinité de flambeaux' (11), and 'le fantôme' (13). The awareness of the context is likely to take little away from the reader's visualisation of the ambiguously supernatural intrusion in the story, especially given that it is only revealed at the very end.

Nodier and Maupassant's works generally provide fewer challenges to comprehension of socio-cultural cues and their visualisation for the reader. Nodier's *fantastique* works, including *Une Heure* and *Inès de Las Sierras* tend to focus more on the feelings of the characters and their interactions with

one another, as well as with the source of the *fantastique*. One could consider Inès' appearance in *Inès de Las Sierras*.

> Au même instant, nous discernâmes dans la partie le moins éclairée de la salle un blanc fantôme qui courait vers nous d'une incroyable rapidité, et qui, parvenu à notre portée, laissa tomber son linceul Il passa entre nous, car nous étions debout, la main sur la garde de nos épées, et s'assit à la place d'Inès.
>
> Me voilà ! dit le fantôme en poussant un long soupir et en rejetant de droit en de gauche de longs cheveux noirs, négligemment retenus par quelques nœuds de rubans ponceau. Jamais beauté plus accomplie n'avait frappé mes regards. (27)

If considering comprehension, the present-day reader in likely to understand what they are being asked to visualise here to the same extent as the original nineteenth-century readers; there are no specific sociocultural indicators, as is the case for many of Nodier's stories. When the words in the above paragraph are run through the Lancaster Norms, only 2 words are unable to be found (ponceau and Inès). Maupassant's texts similarly contain very few sociocultural cues.

With the exception of *Qui Sait?* (1890) which revolves around the protagonist's furniture moving independently, Maupassant's *contes fantastiques* are generally minimal in their setting and object descriptions; the writing largely concentrates on the thoughts and feelings of the first-person narrator as they confront the *fantastique* presence. Laurent Dubreil and Gary Cumminskey have pointed out that Maupassant's *fantastique* presences are usually minimalist in themselves; there is rarely a detailed description of their appearance. As Dubreuil writes of the narrator of *Le Horla*, '…les yeux du narrateur sont curieusement perturbés. Ils voient ; plus précisément, ils ne voient pas l'image ; on en conclut qu'ils voient. Ils voient sans voir' ('Maupassant et la vision fantastique'). *Lui ?* especially conforms to this trend. In terms of furniture, the reader is made aware that there is a fireplace in the room of the protagonist, and a *fauteuil* near the fireplace, both of which present-day readers can also easily visualise. The rest of the text is sparse in descriptions, and barely contains any sociocultural

markers. Lancaster Norms ratings for both *Lui ?* and *Apparition* rarely if ever miss more than one to two words per segment. One could thus argue that, with the lack of nineteenth-century sociocultural references, Maupassant' and Nodier's stories are the most easily comprehensible in their entirety for present-day readers.

While the authors in my corpus vary in relation to the number of sociocultural references they make, I would argue that even the high use of sociocultural markers such as that in Gautier's works does not necessarily affect the comprehension of the text itself as they are usually part of describing the setting and do not feature very prominently in the ambiguously supernatural incident. Peter Mendelsund has argued that an increased amount of description in a text does not necessarily affect the vividness with which a reader visualises: 'Specificity and context add to the meaning and perhaps to the expressiveness of an image, but do not seem to add to the *vividness* of my experience of an image' (135). When a present-day reader struggles to visualise some of the descriptions in Gautier or Mérimée's works accurately, or even at all, they might not be reading the text the way it was intended, or the way it was read by nineteenth-century readers, but they might still be able to visualise central *fantastique* events of the text in a similar way. In *Le Pied de Momie*, for example, the ambiguously supernatural element is introduced at night, when the embalmed foot purchased by the narrator begins moving around his room, and is then pursued by the Egyptian princess Hermonthis, to whom it originally belonged. It is true that even a *fantastique* incident such as the arrival of the princess in the narrator's room at night includes cultural markers which may not be easily understood today: 'C'était une jeune fille, café au lait très foncé, comme *la bayadère Amani*, d'une beauté parfaite et rappelant le type égyptien le plus pur…l'on aurait pu la prendre pour *une statue de bronze de Corinthe*…'[8] (860).

The italicised phrases in the above quotation belong to the descriptive side of the incident but do not reduce comprehension of the incident itself. In relation to visualisation, while the present-day reader might not be capable of visualising the princess's image in the way that Gautier intended, they

[8] My Italics

can still vividly visualise a beautiful princess from their existing schema of princesses and associate it with the concept of foreignness or exoticism, to understand the significance of the Egyptian princess in the story.

Readers are thus likely to understand the gist of a passage without understanding every word in the same; additionally, it is likely that many readers tend not to enjoy, and therefore skim over long descriptive passages, such as those in Gautier's works. Emily Troscianko (2013), for example, writes, 'Long descriptions, rather than prompting detailed imagining, may rather try the reader's patience, and that literary descriptions which keep things short and simple may work better in terms of eliciting an engaged and fluent imaginative response from the reader' (188). As discussed by Troscianko, an experiment was also conducted by Daniel Allington in 2011 to 'to investigate the social production of literary value' involved participants reading passages of John Steinbeck's *The Pearl*. The results revealed significant negative feedback to descriptive passages; they were considered to stall the story and be 'boring' (Allington 323). A present-day reader reader engaging with a long descriptive passage in a *fantastique* text may therefore be likely to skim over it with less regard for understanding the sociocultural cues mentioned.

Some research now suggests that beyond not enjoying lengthy descriptions, readers also visualise actions more vividly than descriptions. Magyari et al (2020) also conducted an eye-tracking experiment in which participants read descriptive and action-based passages and rated their 'imagery' for each. The results indicated that readers read enactive passages more vividly than descriptive passages. As will be further discussed in Chapter 2 in relation to kinaesthetic imagery as a factor contributing towards increasing vivid visualisation (122), the ambiguously supernatural incident in *fantastique* texts often feature movement. In the selected corpus, every ambiguously supernatural incident involves the protagonist either seeing the *fantastique* creature(s) move unexpectedly (*Une Heure, Inès de Las Sierras*, *La Cafetière*, *La Morte Amoureuse*), or making a movement towards them (*La Vision de Charles*, *Lui ?*, *Apparition*). The only exception is Merimée's *La Vénus d'Ille*, in which the protagonist

possibly hears rather than sees the statue move, but the alleged movement of the statue and the auditory imagery associated with it is essential in creating the ambiguously supernatural incident in the story. Additionally, because of the need to preserve its ambiguity, the moment when the rules of the assumed to be ordinary storyworld are disrupted in these texts is usually brief and lacking in specific sociocultural references; the present-day reader is therefore unlikely to miss out on understanding and visualising anything essential to the main plot point when reading a *fantastique* work.

It can be argued that awareness of sociocultural markers creates a difference in how *accurately* the text is visualised and understood, particularly in relation to Gautier and Merimée's works. However, almost all the markers relate to descriptive passages unrelated to the ambiguity of the *fantastique* incident. When it does relate to the *fantastique* incident, e.g. the description of the princess in *Le Pied du Momie* (60) or those participating in the execution in *La Vision de Charles* (61), it might slightly reduce the vividness of a present-day reader's visualisation but not usually during the ambiguously supernatural incident and perhaps less significantly than we might expect, because of the reader's ability to still generally understand what the description refers to as well as the usually negative emotion-evoking writing used sfor the ambiguously supernatural intrusion. The experiment reported on in this thesis was conducted using two Maupassant texts, which as mentioned earlier (62) tend to contain very few sociocultural cues; they are therefore unlikely to be a barrier to comprehension and vivid visualisation in any part of the text for the participants.

I suggest on the previous page that a reader may skim a descriptive passage and read an enactive one more thoroughly. This hints at the reader's ability to expect what a paragraph is likely to contain based on how it begins. The reader's predictive processing at this level, as well as on the level of broader genre-related expectations, is likely to affect their ability to visualise vividly.

Predictive Processing, Visualising, and Emotional Response

In the predictive processing account of cognition, the brain is suggested to predict incoming information based on prior knowledge. Andy Clark, one of the most prominent researchers in the field, writes the following to describe the nature of predictive processing:

> Brains like ours...are multilevel prediction engines forever trying to anticipate the incoming flows of sensory information. Such accounts have roots in familiar (but importantly incomplete) models of 'passive perception'. The brain, on these accounts, combines prior knowledge or expectations (including knowledge about the present context) with the incoming sensory evidence to yield a percept that reflects its best available 'hypothesis' concerning the most probable state of the world. (2)

Clark draws attention to the malleable nature of the predictive processing model, suggesting that while the brain might have some 'inherent' knowledge, majority of its predictive abilities comes from learning and relearning what to expect based on the environment around the individual. While majority of his article 'Radical Predictive Processing' relates to how predictive processing is used by the brain in non-reading situation, Clark does link predictive processing to reading by providing the following diagram.



Figure 1(d)

Clark suggests that the reader of this diagram expects to see the letter "B" if the diagram is read from top to bottom, rather than the number 13 (4). His interpretation of this diagram suggests that a reader reading letters (and numbers, in this case), creates rapid predictions regarding their expectations of what they expect to follow in the text. In *Probability Designs* (2020), Karin Kukkonen similarly describes the number of predictions made in a simple sentence.

> When we read a sentence as simple as 'they tear each other to pieces', a good number of predictions are already made. You expect 'each' to be followed by 'other' and 'tear' by 'pieces', certainly once you see 'to'. Expertise in English reading gives you the relevant predictions about which words are semantically and syntactically likely to follow, and these predictions enable a comfortable and controlled reading experience. (2)

Kukkonen draws attention with the above quote to the reader's predictive processing abilities being engaged when reading every sentence in a work of fiction. Schuster et al (2021) suggested the same; they used fMRI with participants reading silently to investigate the role of the brain in a reader's predictive processing when reading sentences which were either congruent (e.g. 'Cara manufactured objects-of-art out of old leather') or incongruent (e.g. 'The craftsmen repaired the broken irony') (3).

They found firstly, that there was little prediction error cost; readers did not slow down when reading the incongruent sentences. This in turn suggests that readers are quick to adapt as required. Secondly, areas of the brain associated with memory (e.g. the hippocampus and the right inferior frontal region) were often activated for the congruent sentences, suggesting that readers rely on their past reading experiences to predict how a sentence might end while reading it (10). Kukkonen's, Clark's, and Schuster et al's research all suggest predictive processing can affect a reader's responses when engaging with a text. It is likely that predictive processing would thus also be related to a reader's ability to form mental images when reading fiction.

The role of predictive processing in reading fiction is two-fold. Firstly, as illustrated above, the reader is constantly predicting the words of the text which will follow one another. Secondly, as we predict behaviour, we are also likely to predict the events which would follow one another in the narrative when reading a text. Kukkonen suggests how a reader might inevitably apply predictive processing to the plot of a text:

> When you open a book, you do so with a good number of expectations about the kind of text that the author would write (whether you have read her before or not), about the possible events that might happen in the narrative (whether you have heard about the story before or not), and about how much you are going to like what you are going to read (whether you have seen the latest reviews or not). The ways in which a novel presents its narrative, unfolds the experience it yields, and makes its style recognisable is closely connected to the probability judgements it allows readers to make. (1)

Kukkonen suggests an inevitability in the reader's attempt to predict the contents and their response to a fictional text, "whether you have heard about the story before or not". It is important to consider whether and how having "heard about the story" changes a reader's predictive processing when reading the *fantastique*. As mentioned in the introduction, a key feature of the genre is the *unexpected* intrusion of an ambiguously supernatural incident in what was likely assumed by the reader to be an ordinary world (28). As will be further unpacked in the next chapter (93), this

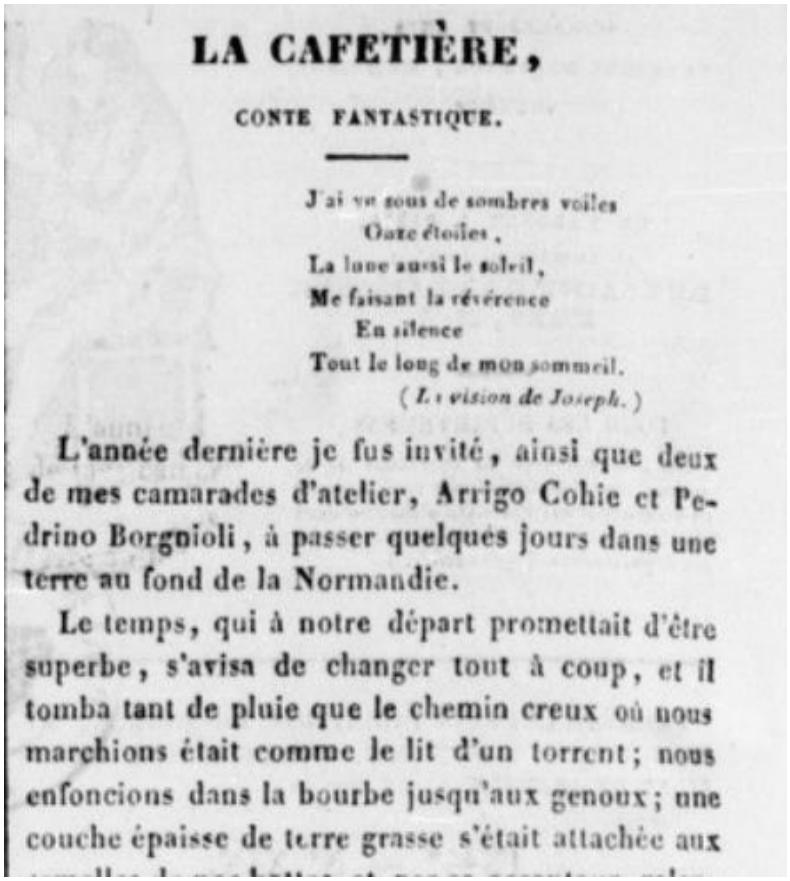
unexpected intrusion is likely to increase a reader's vividness of visualisation through high perceptual strength, emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery. The possibly supernatural creature's interaction with the protagonist might then lower the reader's vividness of visualisation in one of two ways; it might be so abrupt that the reader has trouble understanding how the incident fits in with the earlier-assumed ordinary nature of the text (e.g. *Lui ?*), or it might be a longer discussion, in which case the reader would likely get accustomed to the ambiguously supernatural creature's humanised presence (e.g. *Inès de Las Sierras*). It is worth questioning what happens to this hypothesised pattern of the reader's visualisation when the possibly supernatural element is not unexpected but rather anticipated by the reader because of their expectations from the genre. In other words, to what extent is the reader's ability to *correctly* predict the events of a *fantastique* work likely to affect their visualisation of the same?

The first piece of information required to investigate the relationship between vivid visualisation and predictive processing when reading the *fantastique* is how likely a present-day reader is to be able to correctly predict the events of the text. In *Probability Designs*, Kukkonen addresses how genre expectations affect the reader's predictive processing when reading fiction, using Hilary Mantel's *A Place of Greater Safety* (1992) as an example.

> When readers pick up A Place of Greater Safety in the bookshop, the generic tag 'a historical novel' already gives them a good number of predictions about what they are going to encounter in its 800-odd pages. It is worthwhile to pause here for a moment and to consider the nature of such generic predictions in more detail. Genres have been considered as a mental sorting mechanism for different kinds of texts. First, they allow readers to connect what they read to other narratives which they have encountered without the need to specify a particular text. (108)

Like *A Place of Greater Safety*, *fantastique* texts often come with a tag indicating that they belong to the genre. This is true for both the original and present publications of these texts. As mentioned earlier (18), in the nineteenth century, they were sometimes published with the subtitle 'conte

fantastique'. Gautier's *La Cafetière* (1831), first published in a newspaper called 'Cabinet de Lecture', is an example:



LA CAFETIÈRE,

CONTE FANTASTIQUE.

J'ai vu sous de sombres voiles
Onze étoiles,
La lune aussi le soleil,
Me faisant la révérence
En silence
Tout le long de mon sommeil.
(*La vision de Joseph.*)

L'année dernière je fus invité, ainsi que deux de mes camarades d'atelier, Arrigo Cohie et Pedrino Borgnioli, à passer quelques jours dans une terre au fond de la Normandie.

Le temps, qui à notre départ promettait d'être superbe, s'avisa de changer tout à coup, et il tomba tant de pluie que le chemin creux où nous marchions était comme le lit d'un torrent; nous enfoncions dans la bourbe jusqu'aux genoux; une couche épaisse de terre grasse s'était attachée aux

Figure 1(e)

In the present-day, readers of the *fantastique* are similarly given an indication of what to anticipate with the texts often being published in collections. The following are examples of covers of *fantastique* collections for each writer in my selected corpus:



Figure 1(f)

As seen above, in both the past and present publications, through the (sub)title 'conte fantastique', the reader was and is often provided with some kind of generic expectations regarding what kind of text content they could anticipate when reading. There are also other elements which are more difficult to track but could influence the reader's ability to predict the events of the text, such as their awareness of the author's general style and the frequency with which they have read such material in the past. The question is how this frequently increased ability to predict the unexpected ambiguously supernatural intrusion in the *fantastique* affects a reader's vividness of visualisation.

The Impact of Predicting Correctly on Visualisation

It is difficult to accurately predict in which direction a reader's vividness would be affected, if it is indeed affected at all, because of their ability to predict correctly. On the one hand, research such as that by Sadoski (1988), Krasny and Sadoski (2008), and Wicken et al (2021) has suggested a positive correlation between emotional response and vividness of visualisation. If accurately predicting the ambiguously supernatural incident reduces its surprise for the reader of the *fantastique*, they might therefore not have as vivid a visualisation as they would with an incorrect prediction. On the other hand, it is possible that being able to correctly predict the mental images which will occur primes the

reader to visualise them. In *What We See When We Read*, for example, Peter Mendelsund writes the following.

> In order to make sense of a book's words and phrases we must think ahead when we read- we must anticipate. This is how we readers contend with the cul-de-sacs, hiccups, gaps, and enjambments of our linear, written language. We are picturing what we are told to see, but also we are picturing what we imagine we *will be told to see*, farther down the page. If a character rounds a corner, we predict what's around the bend (94).

Mendelsund suggests the above based on his own subjective experiences as well as that of others. While there have been no experiments directly investigating the relationship between vivid visualisation and correct predictions, it is likely that repeating a visual mental image can automatically cause an individual to visualise it as accurately as possible.

Perhaps the most effective way to investigate the influence of correct predictions on emotional response and vividness of visualisation is to look at how a reader might *reread* a text they are already familiar with. Accurate predictions and rereading are not the same; there is a difference between being vaguely aware of what type of content one is about to read, e.g. something with the ambiguously supernatural in the case of the *fantastique*, and knowing the *exact* supernatural incident one is about to visualise. However, it can be argued that the mental images which occur for someone rereading a text are those which obtain the maximum benefit of accurate predictions. In such a case, assuming the reader remembers the contents of the text from their first reading, there is no room for predictive error. Would their visual mental images therefore be more vivid, or would it be reduced because of the lack of surprise? Kukkonen seems to argue against there being a 'lack of surprise' when rereading:

> Imagine you are reading Jane Austen's Pride and Prejudice once again. Do you know how the story ends? Will Elizabeth Bennet eventually marry Mr Darcy? The answer is obvious. However, while you are reading this familiar narrative, you nevertheless experience suspense. When Mr

> Darcy appears out of breath in the Collinses' cottage, do readers think about the fact that he is just about to propose or do they rather wonder with Elizabeth why this cool aristocrat is so agitated? Does this mean that readers lose control not only over the flow of information in the text but also over their own memory? (50)

Kukkonen refers here to some kind of simulated state of reading fiction any reader engages in when reading, where, even if they are aware of the exact plot, they are able to elicit similar emotional engagement as one who is not aware of it at all. Richard Gerrig (1989) tested a similar hypothesis by conducting three experiments which indicated that 'readers can be made uncertain about whether, for example, George Washington was elected first president of the United States, when an obstacle to this well-known outcome is introduced in a short story' (633).

Kukkonen's concept of a reader reliving the plot suspense when rereading a text refers solely to the events and the reader's possible memory of them, which is suggested to be suppressed temporarily during a second reading to elicit similar emotional responses to a first reading; there is no discussion specifically around whether and to what degree the reader's mental images are reproduced with a second reading. Ellen Esrock (1998) looks more closely at the possible effect of rereading the same text on a reader's visualisation. She firstly suggests that the re-reading reader can choose how to visualise based on why they are rereading:

> When rereading, some readers will not choose to revisualize details, objects, characters, or scenes as a means of immersing themselves in a fictional reality. It will suffice simply to have stored mentally abstract representations of the information, which are invoked when one rereads, serving to make the descriptions seems familiar and thereby create the fictional reality. Although this kind of nonvisual rereading often suffices for those rereading only to gain factual information about the text, it is not likely to satisfy readers returning to a text to derive the affective pleasures gained from the first, visually oriented reading. (159)

This quote accurately illustrates the complexity of interpreting a re-reader's visualisation; they do not have to choose to visualise every detail again. Esrock goes on to argue that the re-reading reader is likely to have a more accurate visual imagery than the first-time reader:

> The reader who visualizes when rereading a text can produce several kinds of mnemonic reverberations that differ from those produced during a first reading. This is because the reader's prior knowledge of the narrative can guide visual anticipations of the future and recollections of the past. Because this reader knows what will happen, she will have little need to correct the visual misrepresentations that occur during a first reading: She would have already eliminated the beard on the husband's clean-shaven face and reconstructed the narrative in its proper sequence. Indeed, with particularly complex works, the reader's anticipated and recollected visual imagery grows more accurate with repeated rereadings. (162)

Esrock does not support the above claims with empirical evidence, but rather forms hypotheses about how a rereading is likely to be. This is nonetheless likely to be an accurate understanding of how one rereads, provided they remember the text descriptions they gathered from their first reading. The combination of Esrock and Kukkonen's ideas suggests that, if the reader were given the ability to predict the events of a plot completely, as is the case with rereading, they would relive the emotions of the plot narrative as if reading for the first time but be equipped with a more accurate visual mental image than a first-time reader. This seems like a combination to create more rather than less vivid visual imagery.

To my knowledge, there is no empirical research on differences in vividness of visualisation between a first-time and second-time reader of a fictional text. However, in my own experiment, participants were asked whether they had read the text before after having completed the main part of the experiment marking their vividness of visualisation while reading the experimental *fantastique* or control non-*fantastique* text. The participants were not provided with the name of the text they were about to read, nor told it was going to be *fantastique*. The decision to conceal this information was made in attempt to reduce any preventable non-text influence on the vividness of visualisation. Two

out of sixteen participants did however recognize that they had read '*Lui ?*' before, and three out of sixteen participants had read '*Apparition*' before. The average vividness of visualisation for the re-readers was 4.11 out of 5, significantly higher than the average of all participants (3.64), however, given the low number of re-readers, the result is not generalisable. The average baseline score of these rereaders was 3.86, just marginally higher than the average VVIQ of all participants (3.78). The open responses further suggested that readers were equally emotionally invested in the text even when re-reading.

Based on the response to the open question, 'Décrivez votre ressenti par rapport à ce texte', it is suggested that the ability to predict the text correctly elicits similar emotional responses from a reader even when they are not reading the text for the first time. A participant who reported having read *Apparition* before, for example, wrote the following comment:

> Les descriptions corporelles et visuelles sont évocatrices, elles suscitent facilement les sensations décrites (peur, sentiment d'effondrement, flot de lumière, cheveux enroulés autour des boutons, feuilles mâchouillées). J'ai retenu mon souffle pendant la plupart de la lecture. Le suspense est bien construit.

None of the rereading participants mentioned how the act of rereading affected their response to the text. This small sample further encourages the idea of rereading not being important for the emotional response to a text. Overall, Kukkonen's idea of the re-reader simulating a first-time reader for every rereading, and their accurate predictions therefore not interrupting emotional response seems accurate. Perhaps counterintuitively, the combination of uninterrupted emotional response with recalled visual imagery as suggested by Esrock creates a more vivid experience of reading the text than the first time, for readers who choose to do so for 'affective pleasure' rather than to 'gain factual information' (Esrock). A present-day re-reader of a *fantastique* text who can predict the ambiguously supernatural incident is likely to nonetheless elicit an emotional response to it and visualise the incident more vividly with their correct predictions.

Paratext

The Nineteenth Century

The *contes fantastique* in my corpus were not originally published in books as they are in the present day. The nineteenth century saw the publication of *contes fantastique* in three types of documents: newspapers, revues, and books. The three differed significantly in terms of font size, document size and layout. Gérard Genette (1987) has collectively referred to these features surrounding the publication of a text as 'paratext'.

> L'œuvre littéraire consiste, exhaustivement ou essentiellement, en un texte, c'est-à-dire (définition très minimale) en une suite plus ou moins longue d'énoncés verbaux plus ou moins pourvus de signification. Mais ce texte se présente rarement à l'état nu, sans le renfort et l'accompagnement d'un certain nombre de productions, elles-mêmes verbales ou non, comme un nom d'auteur, un titre, une préface, des illustrations, dont on ne sait pas toujours si l'on doit ou non considérer qu'elles lui appartiennent, mais qui en tout cas l'entourent et le prolongent, précisément pour le présenter…Cet accompagnement, d'ampleur et d'allure variables, constitue ce que j'ai baptisé ailleurs , conformément au sens parfois ambigu de ce préfixe en français – voyez, disais-je, des adjectifs comme « parafiscal » ou « paramilitaire » –, le paratexte de l'œuvre. (1)

Genette's term 'paratext' is useful to categorise the elements which differed across the original publications of the texts in my corpus. Nodier's *Une Heure ou la vision ou mélanges tirés des tablettes d'un suicide* was originally published in a collection of his works titled *Les Tristes* (1806). Gautier's *La Cafetière* (1831) and *La Morte Amoureuse* (1836) and Maupassant's *Apparition* and *Lui ?* (1883) were all published in newspapers. Nodier's *Inès de Las Sierras* (1837) and Mérimée's *La Vision de Charles XI* (1829) and *La Vénus d'Ille* (1837) were published in revues, which had a format similar to a large book.

The following is a to-scale diagram of the size of the various nineteenth-century documents *contes fantastique* was published in.

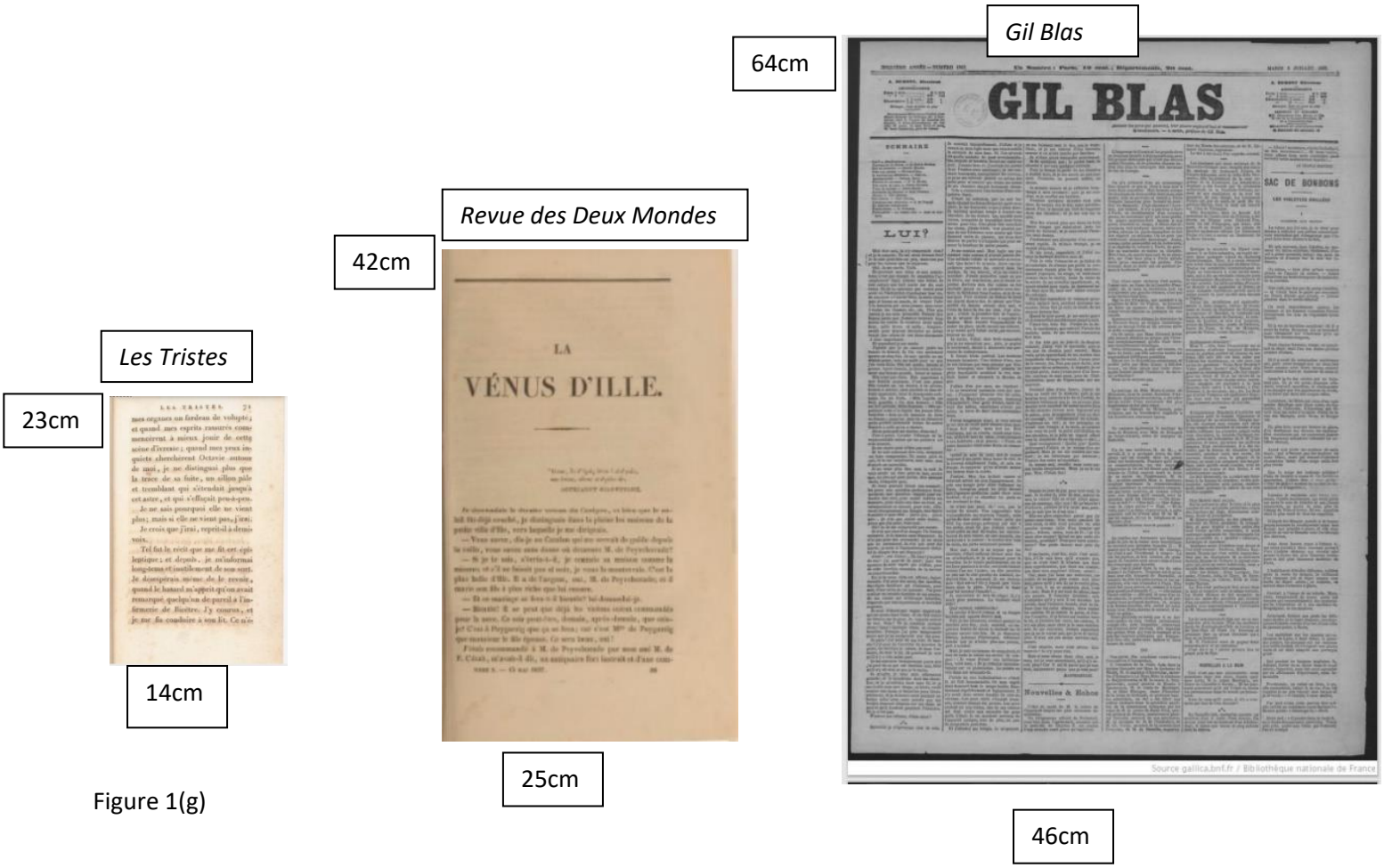


Figure 1(g)

The above image draws our attention to how varied the paratextual features of the document one read the *fantastique* in the nineteenth century could be. The font size in the newspaper is significantly smaller, the layout is in long columns of text rather than paragraphs, the size of the document is significantly larger, and the adjacent texts are of different types (fiction in the book versus nonfiction in the *journal*). *Les Tristes* is similar in size to present-day paperbacks. While *La Revue des Deux Mondes* is about twice the size of *Les Tristes*, the document format of the revue was very similar to the book. The three elements which stand out here as key differences between these various document types in Figure 1(g) are document size, layout, font size, and adjacent texts. There is no research to date on how any of these paratextual factors may influence one's vividness of visualisation. It is possible nonetheless to consider certain hypotheses: for example, the combination of a very small font size such as that in the newspaper could reduce readability (Chatrangsan and Petrie 2019),

especially with its larger size, thus creating a more distracting reading experience for one reading the original text of *Lui ?* than that of those reading *Une Heure* in its original book. The large document size of a newspaper could possibly cause some issues with manageability (turning the pages) which may break the reading flow. It is however very difficult to draw firm conclusions regarding the exact influence of these paratextual factors on vivid visualisation.

It is important to additionally consider the role of habit in relation to the paratextual elements mentioned here. Though some features might discourage readability (e.g. the small font size and large document size of the newspaper), it was very common to read fiction in a *journal* in the nineteenth century. Marie-Eve Thérenty remarks the following:

> Il est […] significatif de considérer les rapports entre les hommes de lettres les plus célèbres et le journal. À l'exception de Flaubert, qui a résisté – avec difficulté – à ses sirènes ensorcelantes, pratiquement tous ont été engagés à un moment ou à un autre par la presse (13).

Thérenty also comments on the literary nature of newspaper articles in the nineteenth century, as many of them were written by fiction-writing authors (22). Indeed, a significant number of the most popular French nineteenth-century writers, including Balzac, Baudelaire, Zola, and the two of the four writers in the corpus, Gautier and Maupassant, published many of their works in newspapers. The original readers of certain *contes fantastiques* might have therefore adapted to any paratextual features which could in less familiar circumstances negatively affect their visualisation. Additionally, Genette describes how certain document sizes may have also led to the reader anticipating certain genres.

> Le format-pliage n'indiquait donc pas à lui seul les dimensions planes d'un livre ; mais l'usage s'est vite établi d'estimer les unes par référence à l'autre : un volume in-folio (plié une fois, d'où deux feuillets ou quatre pages par feuille) ou in-quarto (plié deux fois, d'où huit pages par feuille) était un grand livre, un in-8 était un livre moyen, un in-12, un in-16 ou un in-18 était un petit livre. À l'âge classique, les « grands formats » in-quarto étaient réservés aux œuvres sérieuses (c'est-

> à-dire plutôt religieuses ou philosophiques que littéraires), ou aux éditions de prestige et de consécration des œuvres littéraires (18)

In relation to the previous section on predictive processing (67), it is possible that in certain circumstances, the nineteenth-century reader knew what kind of literature to anticipate based on the document size, which then could have heightened their ability to visualise accurately while maintaining a natural emotional response to the ambiguously supernatural incident.

It is important to acknowledge how different the original publications of *contes fantastique* were from the present-day, as there are likely numerous differences in how they were processed by readers then compared to those in the present day based on paratextual features. However, it is possible to do little beyond hypothesise about the relevance of these various paratextual features from the nineteenth century to a reader's vividness of visualisation.

Present day: Hard copies, computers, e-readers

In the present day, a reader is likely to read a *fantastique* work either as a hard copy, or on a computer or e-reader. It is worth considering whether these various media are likely to raise any differences in visualising the text content. Unless they are engaging in literary research, a present-day reader reading the *fantastique* for pleasure would not be likely to read any of these texts in their original publications. Present-day readers such as those in my experiment are most likely to find a *fantastique* work in a collection, such as those in Figure 1(f) (72). These collections could then either be read online or in a hard copy format. A lot of research on hard copies vs screens is related to learning outcomes rather than reading for pleasure, e.g. 'Reading and learning from screens versus print: a study in changing habits' (Stoop et al 2013), 'The persistence of print among university students: An exploratory study' (Baron et al 2017), 'Reading on-screen vs reading in print: What's the difference for learning' (Alcott 2021). These studies all firstly identify 'screens' to mean a computer screen rather than an e-reader. Secondly, they all commonly conclude that reading in print often leads to better

comprehension than reading on a computer as screens are better for 'quick information gathering, communication and navigation' (Stoop 1). This suggests that even when reading fiction, a reader engaging with a text on a computer screen rather than an e-reader or hard copy might read less deeply.

Deep reading behaviour is argued by several (Jabr 2013, Cocchiarella 2020, Hari 2022) to be fading when reading on computer screens. Hari even suggests that the increased habit on reading on screens have interfered with present-day readers' abilities not just to read deeply on a screen but also read deeply on paper. In his article, 'Are Screens Robbing Us of Our Capacity for Deep Reading' (2022), he writes the following referring to a conversation with professor Anne Mangen:

> Reading books trains us to read in a particular way—in a linear fashion, focused on one thing for a sustained period. Reading from screens, she has discovered, trains us to read in a different way—in a manic skip and jump from one thing to another. "We're more likely to scan and skim" when we read on screens, her studies have found—we run our eyes rapidly over the information to extract what we need. But after a while, if we do this long enough, she told me, "This scanning and skimming bleeds over. It also starts to color or influence how we read on paper. . . That behavior also becomes our default, more or less." It was precisely what I had noticed when I tried to settle into Dickens when I arrived in Provincetown and found myself rushing ahead of him, as if it was a news article and I was trying to push for the key facts.

It is true that a reader's attention might be reduced when reading a text on a screen, which could in turn affect their visual imagery. Brosch (2018) argues that in certain cases, increased attention contributes to heightened vividness, 'Vivid visualisation due to increased attention occurs mainly in descriptive passages when the reader is cued by the narrative to shift from action- and movement-oriented visualisation to object- and description-oriented visualisation' (136). In their article, 'Active Reading of Visualisations' (2018), Jagoda Walny et al argue similarly for the need to pay attention to visualise, 'Keeping track of the elements in a visualisation is challenging, particularly when there are many similar-looking elements. It requires focused attention and use of memory' (774). However, I would argue the length of time spent reading on a screen is also an important factor. In the case of

most *contes fantastiques* (15-16), the reader is unlikely to spend more than half an hour reading the text in one sitting. For a *nouvelle*, it is harder to predict but a reader would take significantly less time to complete their reading of a *nouvelle* than a novel: the introduction stated *nouvelles* to always fall between 5,000 and 40,000 words (16), while novels are usually at minimum 40,000 words. Though the experience of reading a *nouvelle* online might thus be more distracted than a reader reading the text in print, it might be less of a significant factor than a reader attempting to read an entire novel on a computer screen.

A more common method to read fiction now is e-readers; there were allegedly over one billion e-reader users in 2021 (Laricchia 2022). While both e-readers and computers are screens, the primary difference is that the latter does not imitate a print book while an e-reader does, both in terms of size and posture, as well as the ability to virtually "turn" pages. An e-reader also usually does not allow the reader to be as easily distracted as one might be when reading on a computer; it does not serve any other purpose than allowing the user to read, much like a print book. The increased readability offered by the e-reader reduces the distinctions often argued to be found between computer screens and print books. A 2019 study by Mangen et al found no difference in participants reading a long text on an e-reader versus a print book in relation to comprehension, engagement and recall. The only point of distinction was that those using an e-reader were less able to answer questions regarding 'chronology and temporality' (1). This relates to a common deficiency in both screens and e-readers; the absence of a haptic mental map. Jabr refers to how the reader cannot refer to their mental map of a text or understand how far they have read when reading online:

> In most cases, paper books have more obvious topography than onscreen text. An open paperback presents a reader with two clearly defined domains—the left and right pages—and a total of eight corners with which to orient oneself. A reader can focus on a single page of a paper book without losing sight of the whole text: one can see where the book begins and ends and where one page is in relation to those borders. One can even feel the thickness of the pages read in one hand and pages to be read in the other. Turning the pages of a paper book is like leaving one

> footprint after another on the trail—there's a rhythm to it and a visible record of how far one has traveled. All these features not only make text in a paper book easily navigable, they also make it easier to form a coherent mental map of the text. (2013)

Jabr illustrates the value of a print copy in mentally orienting the reader within a text with the above quote. Similar to the attention issue raised for computer screens, however, this would be more of an issue if a novel were being read online rather than a *fantastique* text. As discussed in the introduction, most *fantastique* works are *contes* and *nouvelles*. *Contes* are being argued to being up to 5,000 words, while *nouvelles* are between 5,000 and 40,000 words. While longer *nouvelles*, e.g. *Inès de Las Sierras* may still require a mental map, the reader is less likely to need to form a chronological mental map as compared to the longer novel-length texts being referred to by Jabr in the above quote.

To reach the required number of participants, participants in the experiment conducted did read the text on a computer screen. However, the short length of the experiment texts (both under 3,000 words) may reduce the lack of deep reading as well as the absence of a haptic mental map. Participants were nonetheless asked about which medium they used the most frequently to read books out of hard copies, computer screens, e-readers, audiobooks, and tablets, to investigate whether there was any correlation between choosing a particular medium and their other responses. A majority of participants (54 of 64) chose hard copies; no notable difference was found in the reported vividness ratings of those who chose another option.

As was possibly the case for nineteenth-century reading habits in relation to the various paratextual features in the types of documents the *fantastique* was published in, present-day readers are increasingly adapted to reading information on screens. This could therefore mean that present-day readers might be gradually overcoming the various obstacles associated with reading on a screen and might slowly close the gap in attention between reading on a computer and reading in print. Perhaps as a result, in a few more years, reading on a computer screen will have a much more reduced influence on the cognitive processes of a reader. A feature that present-day readers have gotten used to

in the past few decades and have therefore likely incorporated into their visualisation is images from films and television.

The Influence of Visual Media

A less-researched but likely valuable element which influences the present-day reader's vividness of visualisation is that of visual media. Nineteenth-century readers could only use paintings and perhaps theatre as direct references to the supernatural. Present-day readers however have an abundance of supernatural references in films and television shows. Though there is little research on how this may affect vividness of visualisation, Helena Lopes hypothesises on how a reader's exposure to cinema might affect the way they fill visual gaps when reading fiction.

> Readers have thus been equipped with a virtual inner cinematograph that pervades their visual creativity…contemporary readers of novels not only tap into their experience of deciphering film syntax to fill out the diegetic gaps in the written narrative, but also resort heavily to their cinematic imagination when filling out the visual gaps of a literary narrative. In other words, literary passages that appeal to the visual imagination are now mentally enacted much to the resemblance of film sequences. (109)

Lopes does not refer to 'visualisation' but rather 'visual gaps'. Based on the examples which follow, it is likely that Lopes is referring to movement and the reader's ability to visualise more frequently with 'varying' camera angles. It is also likely that exposure to various kinds of supernatural entities in visual media offers present-day readers more of a schema for what to imagine when they encounter a supernatural creature in the *fantastique*, whether it is a vampire sucking blood (*La Morte Amoureuse*) or a moving statue (*La Vénus d'Ille*). The same might have been more difficult for a nineteenth-century reader to imagine without any schema. This visual framework might further vary based on how frequently the present-day reader engages with horror films and television shows.

A present-day reader may therefore have a more vivid visualisation of certain *fantastique* incidents. When it is possible however, the use of images from visual media is likely to increase a present-day reader's vividness of visualisation; a present-day reader might choose to rely to visual media-related mental images even when not invited to do so by the text. An open response from a pilot test participant for the experiment who read the original text of *Lui ?* suggests the same.

> It was a bit of an uncomfortable read given that the language was strange to my modern ears. It was generally difficult to picture the scenes as descriptions about the surroundings were few and far between, and no description of the man speaking was given. As a result, I found myself picturing an actor I recently watched in a period drama, not knowing exactly when this story was set but choosing it because the way the language was being used felt a match.

Despite being given descriptions which were "few and far between", the above participant had an average vividness of 3.55 out of 5 when reading the main text. A participant from the *Apparition* experimental condition similarly encouraged the idea of using film-related visualisation writing, 'Récit très passionnant et prenant, *qui donne l'impression d'un début de film d'horreur*'. [9] The above comment and the average vividness rating suggest that some readers might fill gaps in their perceptive knowledge using what they watch in visual media. The influence of film on a reader's visualisation has not been thoroughly researched yet so one can only hypothesise about their contribution, but it is likely that the present-day reader's exposure to film and television therefore might allow them to visualise certain content with more vividness than they would have in their absence.

Ambiguity Tolerance

A final individual non-text element being considered in this chapter is that of a reader's ambiguity tolerance. As mentioned in the introduction, the only critical theory which acknowledges the

[9] My Italics

ambiguous intrusion of the supernatural is that of Tzvetan Todorov (1970), in which he suggests the reader of the *fantastique* should hesitate between a rational and *merveilleux* explanation when reading the text. An often-mentioned criticism in relation to this is the one made by Stanislaw Lem:

> We still have with us the dilemma of the hardheaded reader, who, if he is not scared by a ghost story, relabels it with respect to genre. Todorov would hold such a receiver to be an ignoramus who ought to keep his hands off literature. But when we examine the situation in which someone reads an "uncanny" or a "tragic" text and splits his sides laughing, we will realize that this situation can be explained in either of two ways. Perhaps the reader is in fact a primitive oaf who is too immature to appreciate the work, and that is an end of the problem. Or perhaps the work is kitsch and he who laughs at it is an experienced connoisseur of literature, so that he cannot take seriously what the work presents as serious, i.e. he has outgrown the work. ('Todorov's Fantastic Theory of Literature')

Lem draws out a valid criticism of Todorov's argument for the reader hesitating here by essentially suggesting that not all readers can be expected to react the same way to the same work. Differences between readers has already been addressed in this chapter in relation to their baseline ability to visualise itself (51), and variance in the reader's sociocultural awareness (58). As Lem suggests with the idea of the 'hard-headed reader', it is additionally possible that differences in the *personalities* of different readers could influence how they respond to the text. The question of how different personality traits in different readers might combine to affect their reading of the *fantastique* is broad and complex and has not really been researched yet. However, one key personality trait which might be particularly relevant for the *fantastique* is that of ambiguity tolerance. Ambiguity tolerance has been defined as 'The ability to perceive uncertainties, contradictory issues which may be difficult to understand, as well as information with vague, contrary or multiple meanings in a neutral and open way' (Mclain, 2015). Bochner (1965) additionally identified the following traits for those intolerant of ambiguity:

(a) need for categorization

(b) need for certainty

(c) inability to allow good and bad traits to exist in the same person

(d) acceptance of attitude statements representing a white-black view of life

(e) a preference for familiar over unfamiliar

(f) rejection of the unusual or different

(g) resistance to a reversal of fluctuating stimuli

(h) early selection and maintenance of one solution

(i) premature closure (394)

Some of Bochner's traits mentioned above suggest that an individual who is intolerant of ambiguity would not enjoy a *fantastique* work: their need for categorization, and certainty (points A and B in the above list) would not be satisfied by the key ambiguously supernatural incident. It is interesting therefore to consider whether and to what extent ambiguity tolerance can be related to a reader's vividness of visualisation when reading the *fantastique*. Is it then possible that, for example, a reader with lower ambiguity tolerance would visualise the supernatural more vividly because they would respond more strongly to its ambiguity, or less vividly because they struggle to understand it more or enjoy it less? To investigate, the final task for participants in the experiment conducted for this thesis was to complete a questionnaire assessing their ambiguity tolerance.

Ambiguity tolerance has been investigated by a number of researchers in relation to performance, e.g. 'Need for cognitive closure, tolerance for ambiguity, and perfectionism in medical school applicants' (Gärtner et al 2020). However, there is little research relating ambiguity tolerance to reading fiction. The participants in my experiment however were asked to complete McClain's Ambiguity Tolerance Questionnaire (2009). The purpose of this was to investigate whether there was any kind of

correlation between those who scored lower and their vividness. The results indicated no correlation between vivid visualisation and ambiguity tolerance. However, participants who scored low for ambiguity tolerance tended to mention a desire to know what would happen “next”, particularly if they were assigned to *Apparition*, which ends with the sudden disappearance of the supernatural creature and another character. The top five comments with the lowest ambiguity tolerance for example read as follows.

Group	Comment	Ambiguity Intolerance (out of 7)
Apparition Control	Intriguant, *envis d'avoir le dénouement de l'histoire, l'explication de ce qui c'est passé*	6.38
Apparition Experimental	Récit très passionnant et prenant, qui donne l'impression d'un début de film d'horreur. Le passage de la dame en blanc derrière le fauteuil m'a laissé des frissons.	5.92
Apparition Experimental	*curiosite*, un certain amusement car c'est tres previsible; tres "19e siecle" en tout cas mais habilement tourne	5.85
Apparition Experimental	Un certain intérêt quand à l'histoire. *Une curiosité de savoir ce qui allait ce passer ensuite.*	5.85
Apparition Control	De la gêne et de la *curiosité*.[10]	5.85

Figure 1(h)

[10] All Italics in Figure 1(h) mine

Figure 1(h) suggests two interesting features; firstly, that this example of *fantastique* writing was sometimes considered by those with lower ambiguity tolerance to be "incomplete"; phrases such as 'envie d'avoir le dénouement de l'histoire' indicate that participants may have felt they had been provided with only part of a story rather than the entire text. While six other comments with higher ambiguity tolerance (between 3.54 and 5.85) also mention either curiosity (3) or an eagerness to know what happens 'next' (3), no-one who scored below 3.62 out of 7 mentions either in their open responses. Additionally, the words 'curieux' and 'curiosité' were only mentioned six times in total over the 64 responses; therefore, half of them are found in the top five participants' responses with the lowest ambiguity tolerance. These data alone are not sufficient to suggest that those with a lower ambiguity tolerance felt more of a need for closure from the *conte fantastique*, but it does encourage such hypotheses.

Conclusion and Defining the 'Reader'

The purpose of this chapter was to explore various elements beyond the text which can influence a reader's vividness of visualisation and assess the extent to which these can be applied to reading the *fantastique* using existing research as well as some data from the experiment conducted for this thesis. Five non-text elements were investigated: the reader's baseline visualising ability, their awareness of sociocultural cues, their predictive processing, the medium on which the *fantastique* text is being read, and the reader's ambiguity tolerance.

Of the five elements, a reader's ability to visualise is the most important to their reading of the *fantastique*; their baseline visualising skills dictates how vividly they can form visual mental images of the text content. Not understanding sociocultural cues can marginally reduce a reader's vividness of visualisation, but its impact may be reduced if said cue is in a lengthy descriptive passage, or if the gist of the passage is nonetheless understood. A reader's ability to correctly predict the text content heightens their vividness of visualisation. For longer texts, reading on a computer screen could

perhaps create a more distracting reading experience which would in turn lower a reader's vividness of visualisation; however, this possible difference is likely to be minimal given the short length of most *fantastique* texts. Finally, the reader's ambiguity tolerance seems to relate to their interpretation of the *fantastique* based on my experiment, but not to vividness of visualisation.

For the purposes of the experiment being discussed in Chapters 4 and 5, the influence of these five non-text elements were considered. Where possible, there was an attempt to minimise the influence of non-text content elements : the selected Maupassant texts lacked any unusual sociocultural references, the participants were not given the name or genre of the text beforehand to avoid any influence from accurate predictions, and though there was no way around using computer screens because of the incorporated questionnaires, the short length of the main texts reduced differences in attention between reading on-screen and in-print. It was impossible to avoid the role played by two individual differences: varying baseline visualising ability and ambiguity tolerance. These two elements therefore were further considered using additional questionnaires in the experiment, Mark's VVIQ (1973), Blazhenkova's OSIVQ (2009), and McClain's Multiple Stimulus Type Tolerance for Ambiguity Test (1993).

This chapter has established that there are a number of individual differences between readers, including their ability to visualise, their awareness of sociocultural cues, and their ambiguity tolerance. Of these, the ability to visualise in particular has been suggested to cause significant differences in how vividly a reader can visualise fiction. It is worth clarifying who exactly is being referred to when the term 'the reader' is used across Chapters 2 and 3, in relation to the analyses of the text content in the *fantastique* works of Nodier, Gautier, and Mérimée.

The term 'reader' will always refer to a present-day reader with average visualisation abilities. Isaac and Marks (1994) suggested the average vividness of visualisation for their participants to be 3.24 out of 5 (refers to 'moderately clear and vivid' on the VVIQ). My own experiment found the average baseline VVIQ rating to be 3.78 with a low standard deviation of 0.90. I will consider the

'reader' to have an average ability of around 3.5 out of 5 to visualise when engaging in my cognitive literary analyses in Chapters 2 and 3. This would also mean they would have neither aphantasia or hyperphantasia and be capable of having a range of vivid visualisation (52).

I will assume the present-day reader to not be aware of very specific terms such as those mentioned as examples in the section 'Sociocultural Cues' (58). However, as argued in this section, such cues do not normally make up part of the *fantastique* incident. In relation to predictive processing, I will assume a reader who is *not* aware of what they are about to read (neither the exact text nor the genre), and therefore are unable to rely on accurate predictions. The reason for this is the suggested contribution of correct predictions to heightened mental imagery; without an experiment, it is difficult to empirically assess how "correct" predictions would heighten vivid visualisation across a text. The findings of this chapter suggest there is likely to be little difference between reading a text online and in print if the text is short. I will therefore not assume that the reader reads either hard copies or online. The role of ambiguity tolerance is negligible; but I will nonetheless assume a reader with average ambiguity tolerance. I will also imagine a reader who is reading the *fantastique* in the present day for their own pleasure rather than for a specific purpose, e.g. to answer comprehension questions or for literary analysis. This differs slightly from the condition of the experiment as the participant is *required* to read the text and complete the VVIQ rating after each segment. However, the lab-like conditions were reduced by each participant reading the text on their own devices at their own leisure.

Having established the traits of my hypothetical 'reader' using the non-text elements established in this chapter, the second chapter, 'What Makes Visualisation Vivid?' will now illustrate how four factors featured in *fantastique* text content heighten a reader's vividness of visualisation during the ambiguously supernatural incident: high perceptual strength, emotionally evocative writing, kinaesthetic imagery, and deceleration of kinaesthetic imagery.

Chapter 2

What Makes Visualisation Vivid?

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Introduction

This chapter will explore some possible ways in which a reader might produce vivid visual images when reading the *fantastique* texts in the corpus of this thesis. As mentioned in the Introduction and Chapter 1 (47), the primary hypothesis being explored in this thesis is that when reading the *fantastique*, readers are more likely to have an inconsistent vividness of visualisation with a spike at the ambiguously supernatural incident and a drop right after, leading to a larger range of vividness.

The ambiguously supernatural incident was discussed in the introduction (28) as being a key distinguishing feature of the *fantastique*; while other genres such as horror and the *merveilleux* contain supernatural elements, only the *fantastique* contains ambiguity regarding whether the possibly supernatural event occurred. This thesis approaches the question of how vividly a reader visualises the *fantastique* using both theoretical analyses through a cognitive literary framework, as well as empirical data from the experiment conducted (to be discussed in Chapters 4 and 5). The purpose of this dual approach is to first substantiate the primary hypothesis regarding range mentioned above using existing research on how vivid mental imagery is generated, before investigating the extent to which these ideas are supported in the reading experiment. This chapter will focus particularly on the vividness of visual imagery and will consider four components which have been suggested to date to increase vividness of visualisation: perceptual strength, emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery. The next chapter will then explore auditory and haptic imagery in the *fantastique* and its contribution towards increasing the vividness of the reader's visualisation. In both this chapter and the next, the corpus of *contes fantastiques* will be analysed for their use of these modalities: this comprises *Une Heure ou La Vision* (1806) and *Inès de Las Sierras* (1837) by Charles Nodier, *La Cafetière* (1831) and *La Morte Amoureuse* (1836) by Théophile Gautier, *La Vision de Charles XI* (1829) and *La Vénus d'Ille* (1837) by Prosper Mérimée. *Lui ?* (1883) and *Apparition* (1883) by Guy de Maupassant are also part of the corpus, but as the two Maupassant texts are being used

for the experiment, they will be discussed in Chapters 4 and 5 in conjunction with the experiment results.

Chapter Structure

This chapter will investigate four text elements which are likely to heighten vividness of visualisation: the perceptual strength of words; emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery. These factors have been chosen either because there is existing research to suggest their positive correlations with vivid mental imagery (perceptual strength, emotion-evoking writing), or because they are particularly relevant to the ambiguous supernatural incident key to the *fantastique* (emotion-evoking writing, deceleration). Perceptual strength is closely related to vividness as it suggests how easily a word can be visualised. Emotion-evoking writing, often relating to fear, is often prominent in the ambiguously supernatural incident and can increase vividness through the reader's increased emotional engagement. The description of a decelerated action in a text may increase vividness through its emphasis.

It should be noted that my hypothesis is arguing for a larger range of vividness of visualisation compared to non-*fantastique* writing largely created by a noticeable spike during the key segment and a drop right after (39). However, this chapter focuses only on what makes visualisation vivid, that is to say what causes the spike. There is some evidence that vividness of visualisation fluctuates when reading. For example, Krasny and Sadoski (2008), found that their participants' mean vividness rose to 4.5/5 and dropped as low as 1.5/5 (as per the VVIQ) when reading.[11] However, there is very little theoretical and no experimental research on *why* drops in vividness occur. I am thus focusing on factors which may increase rather than decrease the reader's vivid visualisation in this chapter. However, hypotheses will briefly be presented for how drops in vivid visualisation may in part be caused by the absence of these four factors; this idea is developed further later in this chapter with the analyses of

[11] The graph containing this data is reproduced on 114 and will be discussed further there.

the possible vividness spike during and drop after the ambiguously supernatural incident in *La Vision de Charles XI* (1829), *Inès de Las Sierras* (1837), *La Cafetière* (1831), and *La Vénus d'Ille* (1837).

This chapter will cover perceptual strength, emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery as factors which potentially contribute to heightened vivid visualisation, particularly during the ambiguously supernatural incident. High and low perceptual strength is found in all the texts, but the other three factors do not apply evenly to all six fantastique texts. The ambiguously supernatural moment from the most relevant texts have therefore been selected for analysis in each section. A graph using the Lancaster Norms will thus be provided with each text to trace the assumed pattern of vividness of visualisation. To create the graphs, the texts were divided into sections of roughly one or two paragraphs (usually between 100-300 words), and the vividness of each paragraph was assessed using the Lancaster Norms. Besides this type of segmentation being an established method employed by other researchers who have also used the VVIQ when investigating reader response, such as Krasny and Sadoski (2008) and Troscianko (2013), this is also the method and data representation strategy employed in my experiment. This method will therefore make the comparison with the Maupassant texts based on the experiment results in the final chapter more effective. The division into paragraphs has been carried out based on when a new event is introduced in the text. A "new event" refers to a point in the plot where the narrator begins a new action, often involving him physically moving from one place to the next.

This chapter will analyse the four factors considered to heighten the vividness of a reader's visualisation before applying them to four of the eight *fantastique* texts which make up the corpus of my thesis: *La Cafetière* (1831) and *La Morte Amoureuse* (1836) by Théophile Gautier; and *La Vision de Charles XI* (1829) by Prosper Merimée, and *Inès de Las Sierras* (1837) by Charles Nodier. The other two, *Une Heure ou La Vision* (1806) and *La Vénus d'Ille* (1837) will be included in Chapter 3, 'Auditory and Haptic Imagery in the Fantastique'. The two Maupassant texts which will be used for the experiment have been omitted from analysis in this chapter and the next, as I will analyse them in Chapter

5 in conjunction with the results of the experiment in Chapter 4. In doing so, I will bring together the empirical results of my experiment and the theoretical analysis taking place in this chapter under one hypothesis, by illustrating the extent to which factors argued to influence vividness in Chapters 2 and 3 are reflected in the ratings of the participants.

Perceptual strength

My hypothesis suggests that when reading the *fantastique*, there should be points of vividness which are notably higher and lower than the average. Some scholars have suggested that visualisation is more vivid when it happens with as little effort as possible. In 'What We See When We Read', for example, Renate Brosch argues that 'mental images that emerge rapidly and effortlessly are more vivid' (140). Though Brosch and others who have made similar arguments within the cognitive literary theory field (e.g. Starr 2015) usually do so on a purely theoretical basis, it is possible that this idea holds some validity. A large number of scholars have suggested a correlation between high vividness and veridical perception. In Marks' VVIQ (1973), for example, the highest possible vividness rating is described as, 'Perfectly clear and as vivid as normal vision' (18). This in turn suggests that something is visualised based on one's ability to understand what it looks like. Stephen Kosslyn has written extensively about the relationship between veridical perception and visualisation. His definition of mental imagery states that it happens 'when a representation of the type created during the initial phases of perception is present but the stimulus is not actually being perceived' (4), again drawing a relationship between perception and visualisation. To relate this idea of perceptual strength to vividness, the more common an object is, the more often one sees it, and therefore, the easier it is to visualise when it is not present in front of the reader. A word with high perceptual strength may thus also often be a word with high vividness of visualisation.

It is suggested that perceptual strength is strongly related to concreteness, which 'refers to the extent to which a word denotes an object that can be experienced by the senses' (Nelson and

Schreiber 237). In 2018, Patrick Bonin, Alain Méot, and Aurélia Bugaiska examined the relationships between perceptual strength and other characteristics which vary in mental images in French words by asking 482 native French speakers to write down their concreteness, valence, arousal and context availability ratings between 1 and 5 for lists of words for which perceptual strength ratings were already available.[12] The relationship between perceptual strength and the four other factors is shown here in Figure 2(a).

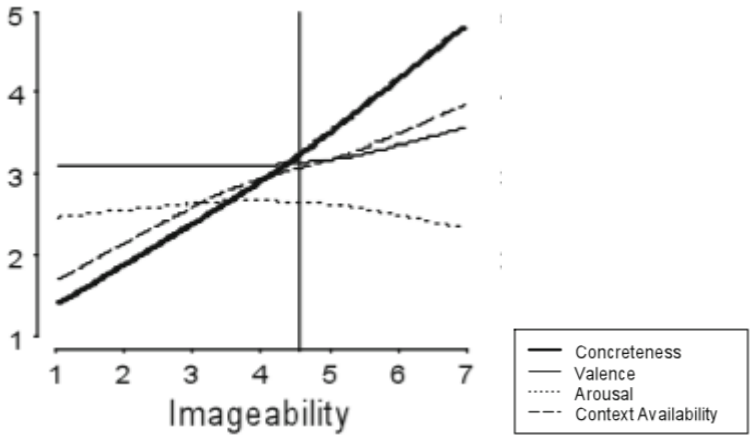


Figure 2(a): The relationship between perceptual strength and other factors (Bonin et al. 2018)

The results indicate a particularly strong positive correlation between perceptual strength and concreteness (.89), suggesting that a mental image that is high in concreteness is usually also high in perceptual strength, and therefore likely to be visualised easily. The second-strongest positive correlation is that between perceptual strength and context availability (.74). The researchers do not offer a clear definition of context availability but suggest that 'Concrete and abstract words differ in the quantity and quality of their available contexts, with the former words having "richer" contexts than the latter' (p. 2368). However, in another study, context availability is defined as the ease with which one can think of a sentence containing that word (Schwanenflugel and Noyes 1996, 40). Valence, which Bonin et al. describe as 'the extent to which an emotion is positive/pleasant,

[12] A discussion on the use of translations in the thesis can be found on page 40.

negative/unpleasant or neutral' (2368), has a much weaker positive correlation with perceptual strength (0.22). This implies that the emotional response elicited from a word can occur independent of its perceptual strength. However, it is worth questioning the extent to which the correlation is affected by perceptual strength banks such as Bonin et al rating standalone words rather than how these words are processed in a sentence; arguably it is more difficult to clearly visualise a standalone emotion-adjective such as 'triste' compared to an object-noun such as 'pomme', or even a sentence such as 'Elle avait l'air triste'. Given this disparity between the perceptual strength ratings for certain words on the visual modality and the visualisation they might evoke when read in a sentence, ratings for perceptual strength alone are unlikely to provide an entirely accurate reflection of how vividly a paragraph of text in a fictional work might be visualised. Assessing the average perceptual strength across a passage can nonetheless offer an idea of how easy it is for a reader on average to visualise the contents of the passage.

Arousal is the 'degree of physiological activation that a word evokes and varies from calm/relaxed to excited' (Bonin 2368). This factor was very weakly negatively correlated (–.15), suggesting that perceptual strength can occur without any physiological activation.

Similar to Bonin et al., Alain Desrochers and Glenn L. Thompson (2009) conducted a survey which generated a 3,600-word list of French nouns ranked for their perceptual strength by 72 participants and had a strong positive correlation to ten other perceptual strength studies using similar methods. The results indicated that the words with the highest perceptual strength were object-nouns, with the ten most highly rated words being *pomme*, *carotte*, *girafe*, *tomate*, *chien*, *banane*, *citron*, *framboise*, *oeuf* and *brosse à dents*, all of which scored between 6.94 and 7.00 on a 7-point scale. On the other end of the spectrum, the lowest scores were attributed to generally rarely-used words such as *tek*, *yod*, and *hune* (scoring between 1.08 and 1.18), as well as more common but abstract nouns such as *virulence*, *temporalité* and *attribution* (also scoring under 2.0). Gonthier, Desrochers, Thompson and Landry (2009) conducted a further perceptual strength survey for 1,760

monosyllabic French words using the same method with 341 participants. Their results reflected those of Desrochers and Thompson (2009), with the most perceptually strong words being object-nouns such as *nuage*, *zèbre*, *lion*, *fraise*, and *livre* (all scoring above 6.70/7) and the lowest being words like *foulque*, *èche*, *vioc*, *viorne*, and *torve* (all scoring below 1.15/7). Given the unfamiliarity of these words, the largest issue affecting perceptual strength seems to be the reader's comprehension and familiarity; their likely inability to know the meaning of these words and thus associate a specific object with the same makes it difficult to relate a mental image to the same.

As evident from the examples in the previous paragraph, 'high perceptual strength' phrases and sentences often include common objects and actions. The 'low perceptual strength' examples feature more abstract concepts, which are difficult to associate with one specific mental image. This chapter as well as Chapter 3 (Auditory and Haptic Imagery in the *Fantastique*, 169) will use the Lancaster Norms to create a perceptual strength graph of each text. The norms have eleven modalities divided into two categories. The first, called 'perceptual modalities' relate to six senses: visual, auditory, haptic, olfactory, gustatory, and interoceptive. While 'interoceptive' is not traditionally a part of the senses, Lynott et al have included it to refer to bodily sensations. The following list contains the highest-rated word for each perceptual strength modality.

Word	Visual.mean	Auditory	Haptic	Olfactory	Gustatory	Interoceptive
BAR CODE	5	0.18	0.53	0	0	0
NOISE	1.05	5	0.48	0.05	0	1.53
HANDSHAKE	3.67	0	4.94	0	0	0.44
INCENSE	2.82	0.18	1.41	5	0.3	0.3
CRÈME CARAMEL	3.95	0.48	1.95	2.42	5	0.79
HEADACHE	0.4	0.4	0.65	0	0	4.9

Figure 2(b)

The second category of modalities in the norms are called 'action effectors' and relate to how strongly words relate to various parts of the body: foot/leg, hand/arm, head, mouth, and torso. Lynott et al argue that different actions use sensorimotor responses from different parts of the body.

> The motor basis to semantic knowledge is specific to the bodily effector used to carry out a particular action. Applying transcranial magnetic stimulation (TMS) to hand and leg areas of the motor cortex differentially influences processing of hand- and leg-action words: hand area TMS facilitates lexical decision of hand-action words like pick compared to leg-action words like kick, whereas this effect is reversed with leg-area TMS (Pulvermüller, Hauk, Nikulin & Ilmoniemi, 2005; see also Klepp et al., 2017). Such double dissociations in motor-language facilitation underscore the importance of individually examining separate action effectors when norming the motor basis of words and concepts. (8)

Lynott et al's collected data therefore contains five individual action effector ratings for every word. As the name suggests, leg-foot, hand-arm, mouth, and torso all refer to actions done primarily using the named body part. Head refers more broadly to both facial gestures, such as smiling, and mental actions such as daydreaming. The following is an example of a word with a high rating in each modality with the visual modality for comparison.

Word	Visual.mean	Foot_leg.mean	Hand_arm.mean	Head.mean	Mouth.mean	Torso.mean
KICK	3.632	4.75	0.15	0.55	0	0.65
GRAB	2.722	0.762	4.333	1.476	0.143	0.952
THINK	1	0.095	0.143	4.762	0.095	0.19
LICK	3.316	0.111	0.111	0.278	4.556	0.056
EXHALE	1.526	0.05	0.1	2.8	4.8	3.45

Figure 2(c)

These ratings from the Lancaster Norms as well as the quote from Lynott indicate that participants made a clear distinction between the various action effectors, depending on where in the body the action occurs. This adds a useful dimension to the mapping of each text: for each segment, the kinaesthetic perceptual strength is likely to vary based on the text descriptions of specific bodily movements. The relationship between these action effectors and vivid visualisation will be further discussed later in this chapter (124). Arguably, while examples of all five action effectors can be found in the *fantastique*, the hand, feet, and head are often the most relevant to the ambiguously supernatural incident. The hand and feet are usually part of the movements conducted by the source of the supernatural, while the head corresponds to a broader range of words, including the thoughts of the protagonist.

The purpose of mapping every text across these modalities using these norms is firstly, to understand how likely easy it is for a reader with average visualising abilities to be able to elicit visual mental images of each segment of a *fantastique* text using the 'visual' modality, and secondly, to explore the extent to which the different modalities are affected by the words in each segment. The first might give us some idea of how vivid reading a paragraph might be, considering its suggested relationship to perceptual strength. Passages with a high number of perceptually strong words are likely to be visualised more vividly by the reader because of the ease with which they can create mental images for the scenes of the passage. Additionally, given that this chapter discusses kinaesthetic imagery for example, it is valuable to consider how highly the action effectors are rated across the passages where there is an increased text description of physical movement.

Issues with Perceptual strength and Vividness Assessment

While these word banks allow us to have a much better understanding of how vividly a reader might visualise different parts of a text, there are likely to be a few unavoidable differences between

the graph created using solely the norms and the graph which could be created if we were able to map the reader's responses to the various sensory modalities across these texts.

The key difference is caused by perceptual strength word banks solely mapping the impact of individual words rather than sentences. Lynott et al describe their method when using the Lancaster Norms as follows:

> Each item appeared individually on its own rating screen in a short piece of framing text followed by the relevant rating scales. For perceptual strength norming, the text read "To what extent do you experience WORD," where WORD was replaced with the item in question in uppercase text. Underneath were six rating scales, one for each of the perceptual modalities under investigation, labelled "By feeling through touch", "By hearing", "By sensations inside your body", "By smelling" and "By tasting,", where the order of modalities was randomised for each item list. For action strength norming, the text read "To what extent do you experience WORD by performing an action with the", where WORD was replaced with the item in question in uppercase text. Underneath were five rating scales, one for each action effector, labelled "Foot / leg", "Hand / arm", "Head excluding mouth", "Mouth / throat", "Torso", where the order of effectors was randomised for each item list. (15)

As illustrated here, Lynott et al's method asked participants to rate standalone words and additionally, required them to consider the word through the lens of the different perceptual strength modalities and action effectors one by one. However, words which rate average or low in perceptual strength when read alone might gain vividness when read as part of a meaningful sentence. A 2016 study by Aboud et al investigated whether there are any differences in the mental processing of WL (word-level processing) and DL (discourse-level processing) using fMRIs. The results suggested that different regions of the brain contributed to the two reading levels. It was found that when reading a passage as opposed to a standalone word, the participant's left angular gyrus lit up, which relates to semantic memory and coherence building (632). Though focused on young readers (aged 10 to 14), Aboud et al's research suggests that readers' ability to combine meanings of the different words and

understand the sentences as a whole could create a more vivid mental image of the scenario being described than if each word were visualised separately, as in the Lancaster Norms.

The distinction between the standalone word ratings in the norms and the way they are visualised when read can be further illustrated with an example. Edgar Allan Poe's *The Tell-Tale Heart* (1843) tells the story of a madman who kills his neighbour, and then hears his heart beating underneath his floorboards; this eventually causes him to reveal his crime to the police. The sentence in which he reveals the crime comes near the end of the text and reads, 'I pointed at the boards and cried, "Yes! Yes, I killed him. Pull up the boards and you shall see!' If put into the Lancaster Norms, the ratings for the visual, auditory, and haptic modalities for the individual words are as follows.

Word	Visual.mean
AND	1.316
BOARD	4.294
HIM	3.206
I	2.308
KILL	2.75
PULL	2.389
SEE	5
SHALL	1.438
THE	0.944
UP	4.133
YES	2.111
YOU	3.556
AVERAGES	**2.79**

Figure 2(d)

Figure 2(d) indicates an overall average perceptual strength across these modalities of 2 out of a possible 5. However, it is likely that, firstly, reading the string of words as a cohesive sentence is experienced even more vividly by the reader because they might gain a visual mental image of 'pulling the boards up' rather than boards by themselves. The increased vividness caused by reading the words in a sentence is then further compounded by the reader's awareness of the context of the sentence in the story; they are kept in suspense for the previous three paragraphs about whether the unnamed narrator will reveal his crime or not. It is thus difficult to account for the likely heightened influence this context awareness has on a reader's vividness when reading the sentence from *The Tell-Tale Heart* using only a perceptual strength word bank.

Another issue worth considering when using the Lancaster Norms is that of homonyms. The word "ring" is a good example. It is rated in the Lancaster Norms as follows.

Word	Audi-tory.mean	Gusta-tory.mean	Hap-tic.mean	Interocep-tive.mean	Olfac-tory.mean	Vis-ual.mean
RING	1.5	0	3.167	0.167	0	4.111

Figure 2(e)

The word "ring" seems to have been interpreted by most participants as referring to the jewellery, and therefore the auditory rating stands at 1.5 out of a possible 5, while the visual rating is 4.1 out of 5. This would mean however, that a sentence such as "The phone rings" would not be interpreted to be as auditorily vivid when run through the Lancaster Norms as it might be for the reader. Such homonyms are not a frequent issue when graphing vividness patterns using the Lancaster Norms, but are worth acknowledging.

It is thus evident that the Lancaster Norms, or any other perceptual strength ratings cannot be equated with vividness ratings for the same word when read in a text. However, the perceptual strength of a word offers a useful likely minimum point of vivid visualisation for the reader. Taking the

Tell-Tale Heart example again, it is likely the if the word 'boards' (visual perceptual strength rating 4.30) were replaced by the synonym 'slats' (visual perceptual strength rating of 2.33), thus making the sentence, 'Pull up the slats and you shall see!', the visual mental image of the sentence might have been evoked with slightly more effort, which would likely reduce vividness. Therefore, it is likely that the ease with which a reader visualises the words of a sentence, in other words their perceptual strength, contributes towards vivid visualisation. This vividness is then further increased by one or more of the three other factors: emotion-evoking writing, kinaesthetic imagery, and deceleration of kinaesthetic imagery.

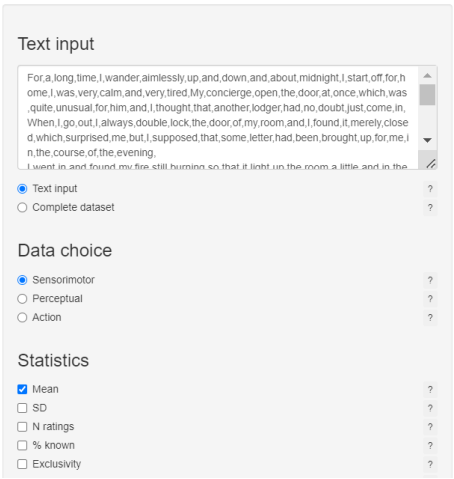
Using the Lancaster Norms

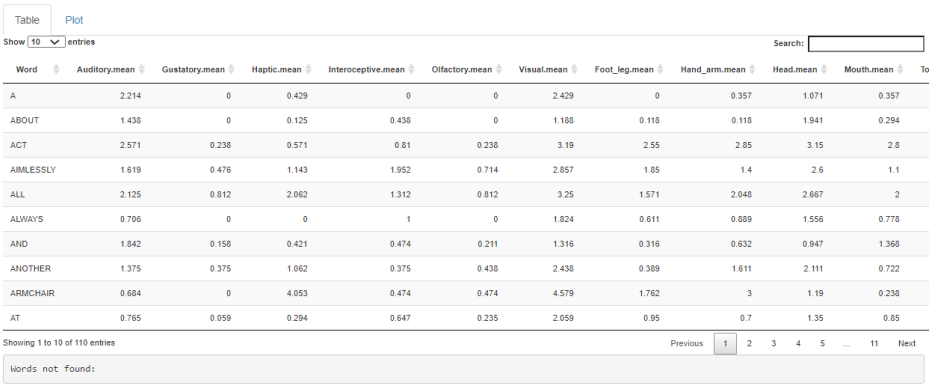
The Lancaster Norms contain ratings between 0 and 5 for 40,000 words for the eleven modalities mentioned earlier (101) and has been chosen over other perceptual strength corpuses for its large word bank and extensive number of modalities. The English translations of the *fantastique* texts of my corpus[13] were divided into segments of two or three paragraphs (usually between 150-300 words per segment). The words of each segment were then run through the norms, and the average of each modality per paragraph was calculated. As this chapter focuses on the visual and kinaesthetic imagery, all graphs will show the perceptual strength ratings for the visual modalities and all five action effectors. Chapter 3 will show the visual modality against the auditory and haptic modalities. The following pictures illustrate the process of running the text through the norms using a segment of *Lui ?*.

[13] A note on which translations were used and the extent to which translations can give an accurate understanding of perceptual strength can be found on page 40.

For,a,long,time,I,wander,aimlessly,up,and,down,and,about,midnight,I,start,off,for,home,I,was,very,calm,and,very,tired,My,concierge,open,the,door,at,once,which,was,quite,unusual,for,him,and,I,thought,that,another,lodger,had,no,doubt,just,come,in,When,I,go,out,I,always,double,lock,the,door,of,my,room,and,I,found,it,merely,closed,which,surprised,me,but,I,supposed,that,some,letter,had,been,brought,up,for,me,in,the,course,of,the,evening,
I,went,in,and,found,my,fire,still,burning,so,that,it,light,up,the,room,a,little,and,in,the,act,of,taking,up,a,candle,I,notice,somebody,sitting,in,my,armchair,by,the,fire,warming,his,foot,with,his,back,towards,me,
I,was,not,in,the,slight,degree,frightened,I,thought,very,naturally,that,some,friend,or,other,had,come,to,see,me,No,doubt,the,porter,whom,I,had,told,when,I,went,out,had,lent,him,his,own,key,In,a,moment,I,remember,all,the,circumstances,of,my,return,how,the,street,door,had,been,open,immediately,and,that,my,own,door,was,only,latch,and,not,locked,

Step 1: Add commas between each word of the segment. In most cases, words also need to be changed from past to present tense and plural to singular.





Step 2: Run lemmatised text through Lancaster Norms software.

SUPPOS	1.167	0.111	0.444	1.111	0.167	1.111	0.75	0.6	3	1.4	0.6
SURPRIS	2.632	0.474	0.632	2.579	0.421	3.579	0.882	1.353	3.059	2.588	1.412
TAKING	0.944	0.389	1.944	0.889	0.278	3.111	0.316	2.737	1.158	0.579	0.474
THAT	1.316	0.789	1.211	0.947	0.842	2.053	0.45	0.55	1.5	0.75	0.3
THE	1.056	0.111	0	0.167	0.167	0.944	0.1	0.1	1	0.85	0.1
THOUGH	1.45	0.2	0.25	3.35	0.15	1.15	0.35	0.5	4.1	1.1	0.55
TIME	0.833	0	0.056	2.333	0	2	0.81	1.286	2.857	1.095	0.81
TIRED	1.541	0.027	0.216	4.432	0.108	2.405	3.053	3.105	3.263	2.684	2.895
TO	1.188	0	0.188	0.5	0.25	1.188	1.421	1.421	1.842	1.737	0.684
TOLD	4.053	0	0.158	0.368	0	1.053	0.158	0.316	2.632	3.316	0.158
TOWARD	0.833	0.222	0.611	1	0.167	3.167	1.762	1.429	1.524	0.714	1.143
UNUSUA	2.85	1.95	1.9	2.9	1.85	3.8	0.667	1.238	2.905	1.429	0.524
UP	0.6	0	1.333	2.067	0	4.133	2.55	3.05	2.7	1.65	2.15
VERY	1.529	0.353	0.529	0.882	0.353	1.353	0.381	0.381	1.857	0.857	0.524
WANDER	1.65	0	0.45	1.3	0.05	3.05	3.05	1.55	2	0.7	1.65
WARMIN	0.389	0.528	3.944	3.333	0.639	1.222	2.03	2.788	2.121	2.121	1.97
WAS	0.611	0.056	0.111	1.167	0.056	0.833	0.263	0.316	1.842	0.789	0.105
WENT	1.167	0.111	0.556	0.944	0.056	3.889	1.8	1.15	1.4	0.75	1.15
WHEN	0.647	0	0	0.882	0	0.824	0.368	0.263	1.947	0.737	0.526
WHICH	0.75	0.562	0.562	0.438	0.5	1.062	0.333	1.056	1.167	0.889	0.278
WHOM	1.913	0.087	0.391	0.174	0.13	2.522	0.2	0.65	1.75	1.65	0.65
WITH	2.562	1.188	2.125	1.438	1.188	3.5	0.7	0.7	2.05	0.5	0.5
	1.487	**0.314**	**1.162**	**1.138**	**0.507**	**2.688**	**1.007**	**1.419**	**2.175**	**1.169**	**0.862**

Step 3: Download sheet of Lancaster Norms ratings and calculate average. Repeat for each segment to plot graph.

Perceptual Strength in the *Fantastique*

All six texts to be analysed across Chapters 2 and 3 have numerous examples of both high and low perceptual strength. The following table contains an example of one from each text with the rating using the Lancaster Norms.

	High Perceptual strength	Perceptual strength Rating	Low Perceptual strength	Perceptual strength Rating
Une Heure ou la Vision	'She was lying on her bed of red damask; there was a candle on her nightstand, a book at her feet; a priest was motionless beside the bed; her mother had fainted on the floor'	3.28	'They absorbed all my faculties to such an extent that I forgot, in a way, the strange motive of my research'	2.17
La Vision de Charles XI	'Several healthy young men, richly dressed, their hands tied behind their backs, entered the hall'	3.35	'I will add that the prediction contained in this affidavit was known and spoken of long before the recent events, that seem to fulfil it, took place.'	2.15
La Cafetière	'Dazzling white skin, ash-blond hair, long eyelashes, and blue eyes'	3.91	'But I hardly dare to say what happened next'	1.91

Inès de Las Sierras	'A dazzling flash of lightning tore the sky, and showed us the white walls of the old castle'	3.34	'There is nothing more contagious than an ex-travagance between young brains.'	2.24
La Morte Amoureuse	'One morning I was seated at her bedside, and breakfasting from a little table placed close at hand'	3.20	'So strange were the circumstances of my story, that I can scarcely believe myself to have ever actually been a party to them myself'	2.16
La Vénus d'Ille	'He talked, got up, ran to his library, brought me books, showed me engravings, and filled my glass'	3.22	'You could not have ar-rived more oppor-tunely'	2.52

Figure 2(f)

Table 2(f) suggests that a reader's ability to easily visualise the text description based on perceptual strength varies significantly. Sentences containing words more commonly found in everyday life, e.g. books, sky, bed, etc. generate higher ratings of perceptual strength than more abstract words, e.g. opportune, motive, etc. The role played by perceptual strength when reading the ambiguously supernatural incident will be discussed in relation to *La Vision de Charles* (137), *Inès de Las Sierras* (145), *La Cafetière* (151), and *La Morte Amoureuse* (154) in this chapter.

Emotion-evoking writing and emotional response

Based on both theoretical and empirical research, emotional engagement with a fictional text should have a positive correlation with heightened vividness of visualisation. Negative emotions such as fear and discomfort are particularly central to the *fantastique* (22). Describing emotions in *fantastique* fiction, Roger Bozzetto writes: 'Le sentiment de fantastique décrit et rend sensible un type particulier de rapport au monde sur le mode de *l'angoisse* ou *la peur*' (6). In *L'effet fantastique*, Helène Brown similarly writes: 'Cet effet produit représente des émotions telles que *la peur*, *le malaise*, *la fascination*, *l'embarras*' (4). Pierre-Georges Castex claims that the *fantastique* is linked to the 'états *morbides* de la conscience qui, dans les phénomènes de cauchemar ou de délire, projette devant elle des images de ses *angoisses* ou de ses *terreurs*' (8). [14] According to these scholars and many others (Yvan Leclerc 1994, Viktória Prohászkovka 2012, Eugenio Bolongaro 2014), the recurring central emotion to the *fantastique* is fear.

Three of the six corpus texts will be analysed for the role played by emotion-evoking writing on vividness: *La Vision de Charles XI*, *Inès de las Sierras* and *La Morte Amoureuse*. These three texts have been chosen as they contain an ambiguously supernatural situation which threatens the life of the ordinary characters witnessing the *fantastique*, and thus contain a substantial amount of emotion-evoking writing in relation to the negative emotions discussed to be a key feature of the *fantastique* in the introduction (22). Nodier's *Une Heure ou la Vision* contains an ambiguously supernatural encounter, but it elicits the 'fascination' mentioned above by Brown more than it does fear as the other characters' lives are not threatened by the *fantastique*. Nodier's use of haptic cues in *Une Heure* which likely heighten vividness of visualisation for the reader when reading the ambiguously supernatural incident will however be discussed in Chapter 3. *La Cafetière* similarly establishes an ambiguously supernatural incident without necessarily suggesting the protagonist's life is threatened. The text does

[14] All my Italics

however describe a lot of movement, which will be discussed in relation to kinaesthetic (122). Finally, in *La Vénus d'Ille*, uniquely, the *fantastique* incident occurs without any visual text images; the narrator hears rather than sees the statue move. This absence of visual cues, however, does not deter vivid mental imagery in the story; I will argue why and go into the implications of non-visual text description being dominant during the ambiguously supernatural incident in the third chapter, 'Auditory and Haptic Imagery in the *Fantastique*' (169). In *Inès de las Sierras*, *La Vision de Charles XI*, and *La Morte Amoureuse*, negative emotions such as fear, disgust, and and the potential threat to the characters' lives is made explicit in the textual imagery using the characters' responses to the ambiguously supernatural incident and the description of the incident itself.

Most works of fiction attempt to give rise to some emotional response in the reader using emotion-evoking writing. Emotion-evoking writing refers to a written description of a character's feelings in a work of fiction. The relationship between emotion and fiction has been written about extensively (Schroeder 2007, Burke 2011). Some studies have gone further and suggested the likely relationship between emotional response and imagination (Kind 2001, Friend 2016) on a theoretical basis. It is worth noting that these scholars do not draw a distinction between emotional response and emotion-evoking writing; they either use the term 'emotion' or focus on 'emotional response'. Social psychiatrist Arnold Modell (2003) and English Literature scholar Renate Brosch (2018) have further suggested the existence of a positive correlation between emotion-evoking writing and vividness of visualisation:

> When personalized scenes of observation involve affect and emotions, they infect the reader, thus providing an important ingredient for an intensification of visualisation. Vividness of mental imagery in turn renders it more emotionally salient for the reader, so that the emotionally salient aspects of the story world are illuminated'. (Brosch 141)

The research cited above, including Brosch and Modell offer a theoretical basis for the idea of emotion increasing vividness of visualisation. The value of emotional response in relation to

visualisation was supported on a more empirical basis through two key experiments run by Sadoski (1988) and Krasny and Sadoski (2008). Krasny and Sadoski conducted an experiment in which participants were asked to read one of two short stories and rate their emotional response and vividness of visualisation after every few paragraphs. Though their discussion was more focused on the similarities between reading the English and the French versions of the two texts, the results indicated a positive correlation between emotional response and vividness of visualisation. For example, Figure 3 shows the pattern of vividness ratings (using the VVIQ) and the emotional response ratings for one of the stories used in their experiment.

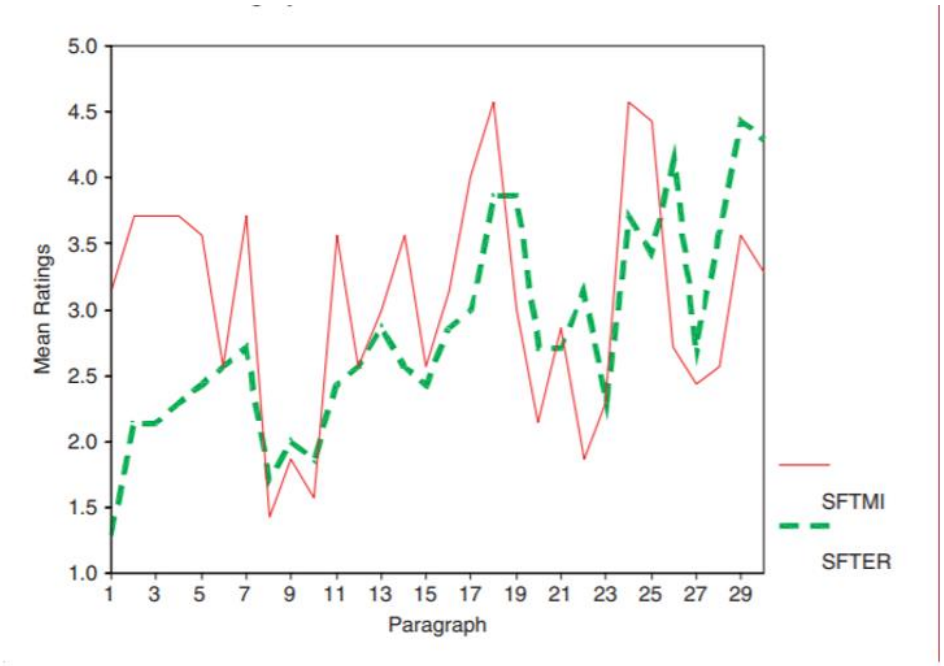


Figure 2(g): Imagery and Affect Ratings for the short story 'A Secret for Two' (Krasny and Sadoski 408)

Though there are some points of difference, it is evident that emotional response and vividness of visualisation follow a similar pattern. This experiment was an extension of earlier research by Sadoski et al. (1988). In the earlier experiment, students were asked to read one of three short stories in English (two of which were then used in the Krasny and Sadoski research), and rate each segment for vividness, emotional response, or structural importance to the story. A positive correlation

between the reader's emotional engagement and vividness of mental imagery has thus been explored both from theoretical and experimental perspectives to date.

The positive correlation between vividness of visualisation and emotion is likely to be maintained if the reader responds with surprise or possibly fear to the ambiguously supernatural incident. This prediction is further supported by Sadoski's earlier 1988 experiment, in which students were asked to read a short story and rate segments of the story for emotional response, vividness, or structural importance to the story. One of the stories used was Saki's *The Open Window* (1911), which contains a scene in which three men the reader believes to be dead are re-introduced to the story. Their responses for vividness and emotional response are in the following graph.

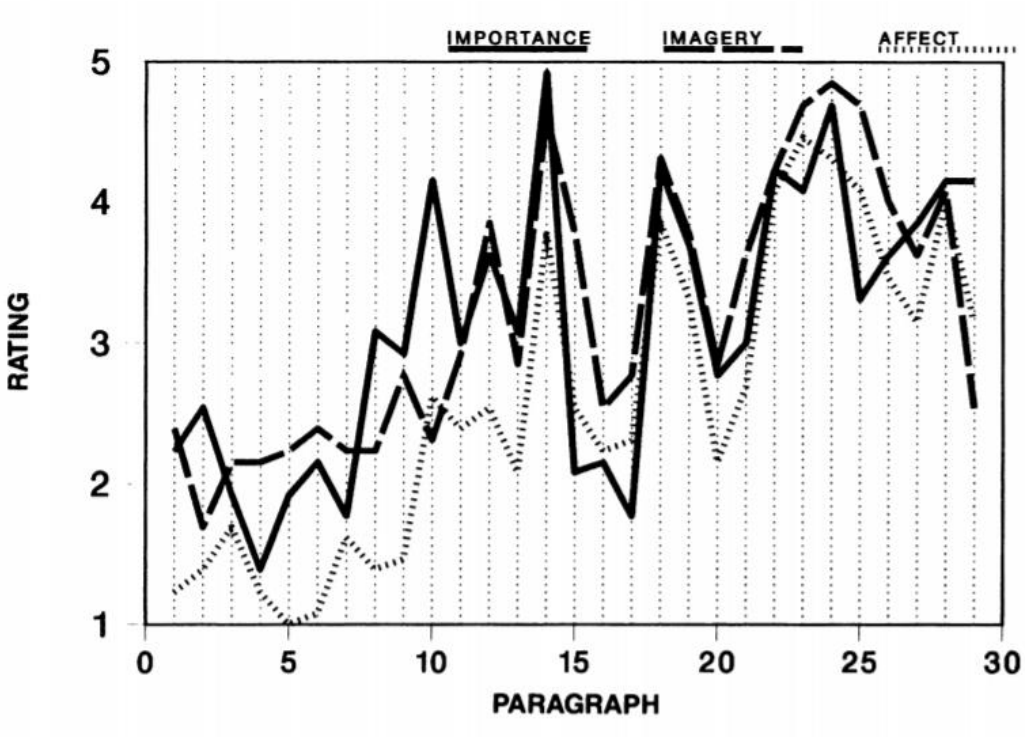


Figure 2(h): Imagery, affect, and importance ratings for *The Open Window* (Sadoski 329)

The graph indicates heightened points of vividness and emotional response at paragraphs 14 and 24. Paragraph 14 described a young girl telling a guest the story of how the men died, and Paragraph 24 described those men approaching the house where the two were (Sadoski 329). Beyond both the vividness and emotional response being heightened at these points, there was also a strong positive correlation between emotion and vividness of visualisation overall for this story (.90) (330). Some

of the participants' responses to reading this segment included: 'This presents almost a ghostly image', 'The whole picture is spooky – like out of a horror movie', 'Creepy again. I can just see the 3 figures floating across the lawn coming back from the dead' (332). This indicates that participants understood that the textual image was fear-inducing, and that they felt fear to some degree themselves.

It is useful to restate the issue of relating emotional response to vividness (mentioned earlier on 104) here when using perceptual strength graphs. The text of the passage in question which was rated at around 4.7 out of a possible 5 in the VVIQ for vividness in Sadoski's experiment only rates 2.82 when run through the Lancaster Norms out of a possible 5. The gap between the two ratings likely indicates the role played by the reader engaging with words in a sentence as well as their awareness of narrative context and their emotional response to the text. While research such as that of Sadoski's encourages the idea that a reader's emotional response to a text corresponds to that of the characters in the text, this is not necessarily always the case. It is thus important to distinguish between emotional response and emotion-evoking writing.

Distinguishing emotional response from emotion-evoking writing

The introduction identifies Todorov's *Introduction à la littérature fantastique* (1970) as a valuable contributor towards understanding the unique nature of the genre, as he was the first to identify the value of the ambiguity in the possibly supernatural incident featuring in the *fantastique* (32). Todorov also mentions fear, both in writing and as the reader's emotional response, to feature in the *fantastique***.** However, he argues that fear is not always necessary for the *fantastique* genre: 'La peur est souvent liée au fantastique mais elle n'est pas une condition nécessaire' (40). His justification is that, firstly, there are *fantastique* texts which do not induce fear, but do induce hesitation: 'pensons à des textes aussi différents que *La Princesse Brambilla* de Hoffmann et *Véra de Villiers* de l'Isle-Adam' (40). This is a valuable point: as mentioned earlier (112), some *contes fantastiques* in the corpus of these thesis, namely *La Cafetière* and *Une Heure ou La Vision* contain an ambiguously supernatural incident

without any emotion-evoking writing. Todorov however goes on to argue that fear should not be considered an essential condition for defining the *fantastique*, as it puts too much of the genre's dependence on the reader: 'il faudrait en déduire […] que le genre d'une œuvre dépend du sang-froid de son lecteur' (40). A key question to consider at this point in relation to Todorov's above quote is the extent to which we can assume that readers would all react similarly to an emotion-evoking passage.

While Sadoski (1988) and Krasny and Sadoski (2008)'s results show positive correlations between emotional response and vivid visualisation, I would argue It is entirely possible for a reader to read the ambiguously supernatural incident in a *fantastique* word and yet not feel the related emotions. Reasons for this disparity could include not finding the incident emotionally impactful or not caring for the protagonist to the extent that it overshadows the plot. As mentioned earlier, a similar argument was drawn by Stanislaw Lem in his critique of Todorov's approach to the *fantastique* which relies on the reader responding to the text with hesitation (33). Further support for the gap between emotion-evoking writing in the text and a reader's emotional response was found in the results of the experiment conducted for this thesis.

When asked to describe their experience reading *Lui ?* or *Apparition* after completing their reading of the main text, a number of participants wrote about their emotional response to the text. While most participants mentioned emotional responses similar to those felt by the characters, e.g. 'peur', 'frisson', 'incertitude', 'angoisse', etc, some participants solely mentioned disliking the character. An example from *Lui ?*'s experimental group was as follows: 'Un peu ennuyeux. Le côté 'me, myself and I'...! Et cette vision si misogyne ! Le personnage n'est vraiment pas du tout attachant'. While this open response does not mean that the participant did not have any of the emotional responses corresponding to the emotion-evoking writing in *Lui ?* it does suggest that they valued their dislike of the protagonist over any emotional responses they had to the ambiguously supernatural incident in the text. Some participants also described not being able to understand the narrator's fear when confronted with the ambiguously supernatural incident. A participant reading the original text of *Lui ?* simply

wrote ‘Banal’ as an open response. Another participant described being unable to relate to the emotion-evoking writing in *Apparition*. The passage describing the narrator’s reaction immediately after seeing the alleged apparition of ‘une grande femme vêtue de blanc’ is as follows.

> Une telle secousse me courut dans les membres que je faillis m'abattre à la renverse ! Oh ! personne ne peut comprendre, à moins de les avoir ressenties, ces épouvantables et stupides terreurs. L'âme se fond ; on ne sent plus son cœur ; le corps entier devient mou comme une éponge, on dirait que tout l'intérieur de nous s'écroule. (Maupassant 784)

The passage clearly contains several mentions of fear, with exact words (terreurs) as well as the narrator’s described physical reaction (une telle secousse me courut dans les membres…). If emotional response were to correspond to the emotion-evoking writing therefore, the reader should feel some sense of fear. One participant reading *Apparition* however wrote the following in his open response:

> Je m'attendais dès avant la visite au château à ce que le narrateur serait confronté à "une apparition". Je n'ai donc pas été surpris, ni pris moi-même d'épouvante. D'autant moins que l'apparition n'a rien fait de menaçant. C'est au point que j'en considère presque que la réaction du narrateur est excessive.

The open response clearly indicates a disparity between the emotion-evoking writing of the narrator’s response and the reader’s actual emotional response. Such responses illustrate that a reader’s response does not always necessarily correspond to that of the emotion-evoking writing in the text. The question then becomes how we can consider the role of emotional response in relation to vividness of visualisation.

The open responses from my conducted experiment suggest that a reader’s emotional response does not always correspond to the emotion-evoking text. However, Sadoski’s experiments discussed earlier (114-115) as well as my own results indicate a positive correlation between the

emotion-evoking text and the participants' vividness of visualisation. The participants who wrote the open responses mentioned earlier indicating a dissonance between their emotional response and the emotion-evoking text still rated the emotion-evoking segment of the ambiguously supernatural incident more highly by 1 to 2 points than their vividness ratings for other segments (e.g. the participant quoted from the *Apparition* experimental group rated the key segment as 4 out of 5 while rating nearly every other segment as 3). Additionally, as will be further discussed in Chapter 5 (294), the other highly-rated passage in *Apparition* was the point at which the narrator expresses being intensely happy when walking in the forest. Phrases from this segment expressing the narrator's emotions include, 'joie de vivre', and 'un bonheur tumultueux et comme insaisisable' (782). It is therefore perhaps possible to infer where a participant's vividness of visualisation would be heightened based on the emotion-evoking passages of the text rather than by assuming their emotional response would mirror that of the characters, or that the reader's emotional response needs to be mirrored to heighten vividness. The texts being discussed in this chapter will be analysed accordingly.

In this chapter, I will be drawing a distinction between three kinds of emotion-evoking writing in the *fantastique*; literal, descriptive, and bodily. A literal use of emotion-evoking language is the most direct and consists of a character being described to have an emotion, e.g. 'il a peur'. Descriptive emotion-evoking writing refers to a description being presented which is likely meant to evoke an emotional response based on the context of the story. For example, in *Apparition*, when the narrator is in the room of a deceased woman and sees 'une grande femme vêtue de blanc'. There is nothing related to emotion within the phrase itself, but it encourages the reader to understand that a fear-related incident which might threaten the protagonist has occurred.

Finally, bodily emotion-evoking writing refers to when the text describes a physical reaction as part of a character's emotional response. Guillemette Bolens argues that we need to understand what a physical movement implies to understand the emotion it evokes. Discussing descriptions of physical movement in Jane Austen's *Pride and Prejudice*, Bolens writes, 'Le style kinésique de *Pride and*

Prejudice ne peut se saisir qu'à travers un contact avec le style littéraire global de l'œuvre et son système de valeurs, dans lesquels la maîtrise et ses failles sont des vecteurs de sens dominants' (*Le Style des Gestes* 23). In the *fantastique*, there are often descriptions of a character's body language which imply an emotion. An example can be seen in Nodier's *Une Heure ou la Vision*, in which the protagonist's expression is described when talking about Octavie, 'une larme glissait de la long de sa visage' (306). Though no emotion is literally stated, the tear sliding down the narrator's face implies sadness.

All three types of emotion-evoking writing unpacked here can be found in the *fantastique*. However, only descriptive emotion-evoking writing features *in* the ambiguously supernatural incident. Literal and bodily expressions of emotion-evoking writing, on the other hand usually feature before and after the ambiguously supernatural incident. *Apparition* (1883) provides a useful example of this difference. The yellow highlights in the following passage refer to bodily expressions of emotion-evoking writing. The green refers to descriptive emotion-evoking writing. The blue refers to literal expressions of an emotion.

> Dans mon élan je m'étais retourné, la main sur la poignée de mon sabre, et certes, si je ne l'avais pas senti à mon côté, je me serais enfui comme un lâche.
>
> Une grande femme vêtue de blanc me regardait, debout derrière le fauteuil où j'étais assis une seconde plus tôt.
>
> Une telle secousse me courut dans les membres que je faillis m'abattre à la renverse ! Oh ! personne ne peut comprendre, à moins de les avoir ressenties, ces épouvantables et stupides terreurs. L'âme se fond ; on ne sent plus son cœur ; le corps entier devient mou comme une éponge, on dirait que tout l'intérieur de nous s'écroule. (784)

This example illustrates how important all three types of emotion-evoking writing discussed above are featured in *fantastique* writing. However, bodily and literal expressions of emotion-evoking writing are featured before and after the ambiguously supernatural incident. I would further argue

that the purpose of these two types of emotion-evoking writing is to illustrate the character's emotional responses. In the highlighted passage, for example, both the yellow and blue highlights are in larger paragraphs describing the narrator's physical and mental reactions to the ambiguously supernatural incident. Emotionally descriptive writing on the other hand, features in the ambiguously supernatural incident to convey its nature to the reader. It can encourage the reader to feel fear (as in the highlighted passage) or surprise. How the reader is encouraged to emotionally respond further depends on the combination of descriptive, literal, and bodily emotion-evoking writing in each *fantastique* text. In *Une Heure ou la Vision*, for example, the narrator witnessing the ambiguously supernatural incident does not feel fear as conveyed in *Apparition*, but rather unhappiness and surprise. I would argue that descriptive emotion-evoking writing is particularly key to heightening vividness in the *fantastique* when the ambiguously supernatural incident is meant to be scary; in texts such as *Une Heure ou la Vision*, therefore, the vividness is likely to be heighted during the ambiguously supernatural incident through factors other than emotion-evoking writing, e.g. kinaesthetic imagery, deceleration, and perceptual strength.

This section has made a distinction between the reader's emotional response to a text and the emotion-evoking writing within the text, arguing that the latter may cause an increase in vividness even when the reader's emotional response does not correspond to the emotion-evoking writing. Three different kinds of emotion-evoking writing have been identified: literal, descriptive, and bodily. The application of these three types of emotion-evoking writing will be unpacked further in the sections discussing *La Vision de Charles XI* (137), *Inès de Las Sierras* (145), and *La Morte Amoureuse* (154).

Kinaesthetic Imagery

In this thesis, kinaesthetic imagery refers to the mental imagery elicited from textual imagery describing physical movement. There is some debate around the most accurate term for this kind of mental imagery. Ellen Spolsky (1996) and Guillemette Bolens (2013) use the term 'kinesic intelligence' to refer to mental imagery featuring movement. The latter explains the term as, 'la faculté de *sémantiser et de comprendre*[15] les mouvements corporels, les postures, les gestes et les expressions faciales' (1). Bolens's definition suggests that for a reader to use kinesic intelligence, they must be able to understand what the movement looks like, and what it implies, as discussed earlier in relation to *Pride and Prejudice* (120). She thus places a heavy emphasis on the social parameters related to body language. In my thesis, I have opted to use the term "kinaesthetic imagery" instead. The Oxford English Dictionary distinguishes between 'kinesic' and 'kinaesthesis' as follows.

Kinesic	Of or pertaining to communication effected non-vocally through movements or gestures.
Kinaesthesis	The sense of muscular effort that accompanies a voluntary motion of the body. Also, the sense or faculty by which such sensations are perceived.

Figure 2(i)

The distinction between the two definitions suggests that kinesic is more interpersonal and depends more on *interpretation*. Seeing someone smile and understanding that they are happy for example could be considered as a person using their kinesic intelligence. Kinaesthesis on the other hand is a broader term which focuses on both the body's responses to movement and how these movements are processed by the brain. Kinaesthesis therefore, seems more pertinent to the idea of a reader processing movement from a textual image through mental processes. Additionally, the term

[15] My Italics

'kinaesthetic imagery' aligns with my terms for the other modalities across Chapters 2 and 3 (visual imagery, auditory imagery, etc.

A key question worth raising here is the extent to which it has been established that readers visualise movement and its distinction from visualisation. Most research focusing on kinaesthetic imagery has not looked at participants reading fiction but rather reading standalone sentences describing movement. However, some research indicates that there is a relationship between comprehension of an action when reading and the reader's ability for an individual to conduct said action. For example, Hauk et al (2004) found using fMRIs that, in a passive reading task, action words such as 'lick', 'pick', and 'kick' activated motor areas used when actions were conducted when one uses their hands or feet. Fernandino et al (2013) also found that the processing of such action words was selectively impaired in patients suffering from Parkinson's disease. This thus suggests that one's understanding of how they complete a physical action might relate to their ability to visualise it. The perceptual strength of action words is thus likely to be valuable to considering the role of vividness of visualisation in relation to action words.

While it is impossible to know how exactly readers visualise movement descriptions in a text, especially given that there might be further interpersonal differences in this ability based on their baseline ability to visualise which also likely relates to their ability to visualise actions (51), both theoretical and empirical research suggest that readers draw a distinction between object-based and action-based text description. In *What We See When We Read*, Mendelsund writes, 'Often, when I ask someone to describe the physical appearance of a key character from their favorite book, they will tell me how this character moves through space. (Much of what takes place in fiction is choreographic).' (28) Though anecdotal, Mendelsund's argument here seems to suggest that physical movement is a key, memorable component of mental imagery when reading fiction. Further support for the likely value of movement description was found in study by Gladney and Krulee (1967). The researchers suggested that verbs were more valued that nouns by the reader; when introducing syntactical errors

into sentences, the readers found errors in the main verb the most disruptive, compared to any other structure (adverbs, adjectives, nouns). While this research doesn't directly suggest that readers visualise movement, it does indicate that they are likely to pay attention to movement descriptions when reading fiction. The Lancaster Norms word bank described earlier (101) contains ratings for six perceptual and five action effector modalities. The correlations between the visual modality and the five action effectors can be found in the following figure. The warmer the colour of the circle, the stronger the positive correlation.

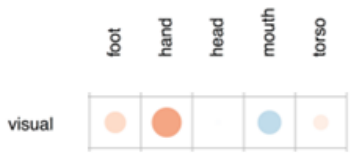


Figure 2(j)

As seen in the above figure, there are positive correlations to be found between some of the action effectors and the visual modality. The strongest positive correlation is seen between the hand and visual modality, suggesting that readers are likely to visualise an action described to be done using one's hands more easily. There is a weaker positive correlation seen between the foot and the visual modality. The mouth has a negative correlation with the visual, suggesting descriptions of actions done using the mouth are not usually visualised very easily. The torso has a very weak positive correlation with the visual, and there is no correlation seen between the visual and head modalities. Figure 2c (102) contained an example of a word rated highly on each action effector. Overall, the Lancaster Norms indicate no strong correlations between highly-rated action effector words and highly-rated words on the visual modality. The norms thus suggest that visualising action is not necessarily more perceptually strong than visualising still objects. It is worth noting however, as has been mentioned earlier, that perceptual strength ratings might not reflect vividness of visualisation ratings, particularly

when considering the words in a sentence as would be the case in a text (104). Lynott et al's participants were asked to rate words individually on separate perceptual strength modalities. As per the Lancaster Norms method description mentioned (104), Lynott et al's participants were asked to read a word such as 'run' and then rate it on each of the modalities separately. It is likely that this method thus encourages participants to isolate each modality in relation to the word rather than consider the more synaesthetic effect such a word would have if presented in a sentence. Relating to the example presented earlier from Edgar Allan Poe's *The Tell-Tale Heart* (105), the word 'pull' alone, has the Lancaster Norm Ratings as follows:

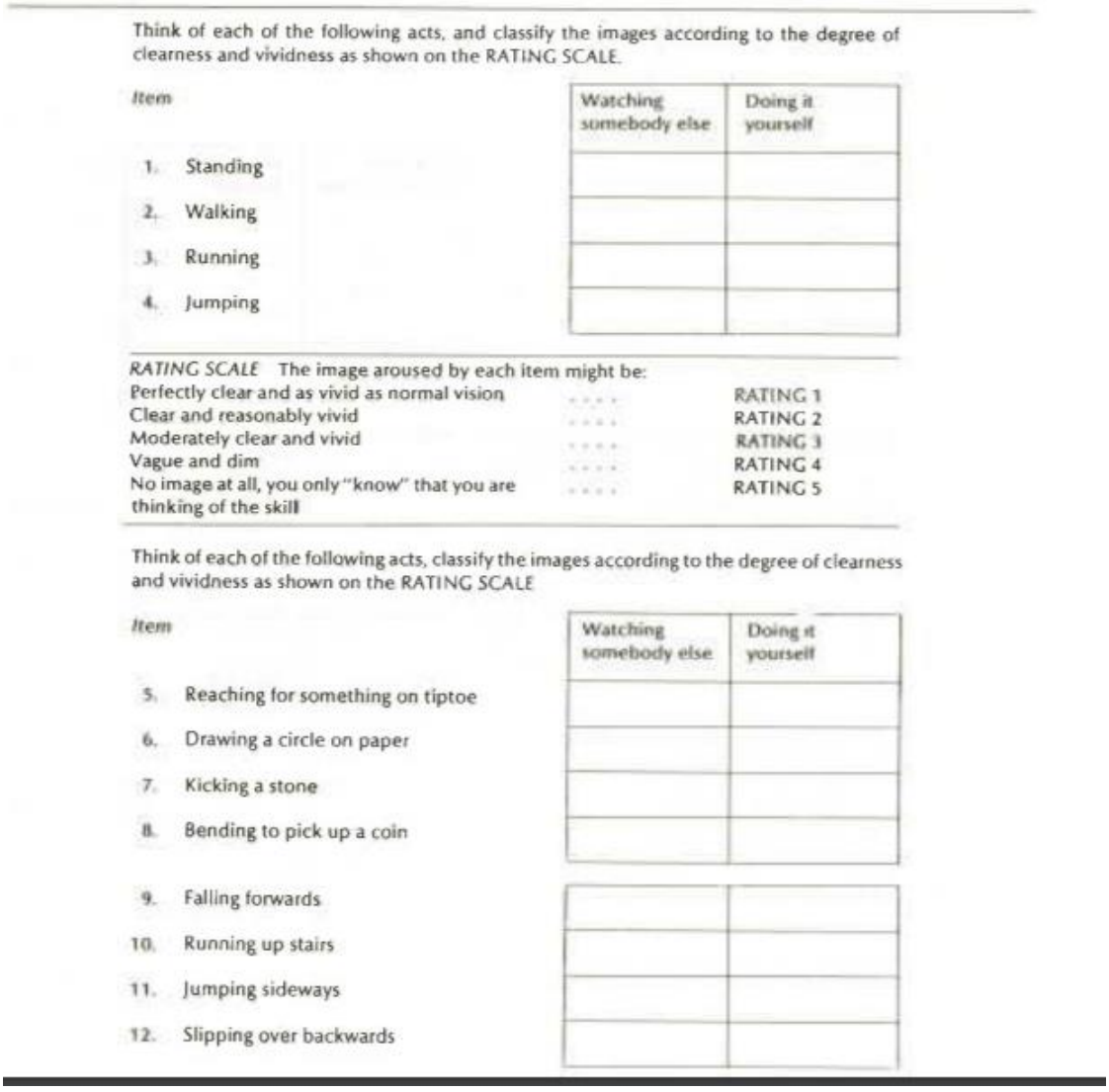
Word	Auditory	Gustatory	Haptic	Interoceptive	Olfactory	Visual	Foot	Hand	Head	Mouth	Torso
Pull	1	0.056	4.389	2.222	0.056	2.389	1.571	4	0.857	0.095	1.143

Figure 2(k)

These ratings illustrate that when considered as a standalone word, the 'hand' action effector, and in relation, the 'haptic' perceptual strength modality, were more highly rated than the visual modality. It is possible that these ratings relate to Hauk et al's (2004) fMRI research (123); reading the standalone action word might have encouraged participants to focus on their own activated sensorimotor responses, which would have been strongest for the haptic and the hand modalities. However, this might not be the case if participants read the word 'pull' in a sentence, e.g. in *The Tell-Tale Heart*, 'Pull up the boards and you shall see!'.While a reader may still experience the same sensorimotor responses with the word as when reading it alone, the context of who is pulling [the disturbed narrator] and what is being pulled [the floorboards hiding a dead body] are likely to increase vividness of visualising the action as the details contribute towards a more specific mental image. The Lancaster Norms action effector ratings may nonetheless provide a useful indication of the points in the text where it is easiest for the reader to evoke kinaesthetic imagery.

Vividness of kinaesthetic versus non-kinaesthetic imagery

As mentioned earlier, to my knowledge, there is no empirical research specifically on the vividness of kinaesthetic imagery when read in fiction. Most existing empirical research into kinaesthetic imagery focuses on sports, e.g. the kinaesthetic imagery of athletes as opposed to non-atheletes (123). The earliest research into vividness of movement was conducted by Isaac et al (1986), who also created the VVIQ being used in the experiment. Though similar to the VVIQ in the style of rating (53), the VMIQ has more items and also asks the respondent to distinguish between them performing the action themselves (internal imagery) and watching someone else perform the action (external imagery):



Think of each of the following acts, and classify the images according to the degree of clearness and vividness as shown on the RATING SCALE.

Item	Watching somebody else	Doing it yourself
1. Standing		
2. Walking		
3. Running		
4. Jumping		

RATING SCALE The image aroused by each item might be:

Perfectly clear and as vivid as normal vision	RATING 1
Clear and reasonably vivid	RATING 2
Moderately clear and vivid	RATING 3
Vague and dim	RATING 4
No image at all, you only "know" that you are thinking of the skill	RATING 5

Think of each of the following acts, classify the images according to the degree of clearness and vividness as shown on the RATING SCALE

Item	Watching somebody else	Doing it yourself
5. Reaching for something on tiptoe		
6. Drawing a circle on paper		
7. Kicking a stone		
8. Bending to pick up a coin		
9. Falling forwards		
10. Running up stairs		
11. Jumping sideways		
12. Slipping over backwards		

Figure 2(l): The VMIQ Questionnnaire (Isaac et al 29)

Isaac et al (1986) found a strong positive correlation (.81) for 220 students between the VVIQ and the VMIQ in their initial study (27). A more recent survey by Corrado et al (2014), which investigated the VVIQ and VMIQ responses of 90 participants divided into dancers, karate athletes, and non-athletes, similarly found an average positive correlation of .76 between the VVIQ and the VMIQ across the three groups. It is therefore suggested that those with the ability to have vivid visual imagery also tend to have vivid kinaesthetic imagery. This is possibly in part because of the overlap between visual and kinaesthetic imagery likely to occur when reading sentences such as those in Marks' VVIQ test as opposed to rating words in the Lancaster Norms.

Existing experiments for kinaesthetic imagery have used the VMIQ, such as Isaac et al (1994) and Callow and Hardy (2004). The idea is encouraged that, firstly, kinaesthetic imagery is based largely on perceptual strength, similar to visual imagery (Hauk et al 2004). Additionally, the strong positive correlation found between the VVIQ and the VMIQ (Isaac et al 1994, Corrado et al 2014) encourages the idea that vivid visualisation overlaps with vivid kinaesthetic imagery. The lack of correlation found between highly-rated action effector words and the visual modality words in the Lancaster Norms however suggest that these correlations are likely to not be reflected when reading sentences. However, the Lancaster Norms are still a valuable way to understand where action effector words are particularly concentrated in the text. This is important as this chapter argues that kinaesthetic imagery is likely to increase vividness of visualisation. Therefore, the segments with the largest number of perceptually strong action effector words are likely to be more vivid.

Kinaesthetic imagery in the *fantastique*

Text descriptions which should evoke kinaesthetic imagery include characters walking, running, picking up objects, and gesturing with their hands. Similar to Figure 2(f) (111) illustrating high and low perceptual strength in the corpus texts to be discussed across Chapters 2 and 3, it is also possible to find examples of movement during the ambiguously supernatural incident in these texts.

Text	Author	Quote
Une Heure ou La Vision	Charles Nodier	'Je vis distinctement qu'elle *flottait* dans une vapeur…Je perdis connaissance, et Octavie ne *s'éloigna* point de moi. Elle se *pencha* sur mon corps immobile…' (70)
Inès de Las Sierras		'Au même instant, nous discernâmes dans la partie la moins éclairée de la salle, un blanc fantôme qui *courait* vers nous d'une incroyable rapidité, et qui, parvenu à notre portée, *laissa tomber* son linceul…' (27)
La Cafetière	Théophile Gautier	'Toute l'assemblée *se leva*. Les fauteuils *se reculèrent* de leur propre mouvement ; alors, chaque cavalier *prit la main* d'une dame' (15)
La Morte Amoureuse		'Je *m'habillai* en hâte, et elle me *tendait* elle-même les pièces du vêtement, en *riant* aux éclats de ma gaucherie, et en *m'indiquant* leur usage quand je me trompais. Elle *donna du tour à mes cheveux*, et, quand ce fut fait, elle me *tendit* un petit miroir de poche en cristal de Venise'(107)
La Vision de Charles XI	Prosper Mérimée	'En même temps, le cadavre parut *trembler d'un mouvement convulsif*, et un sang frais et vermeil *coula* de sa blessure. Le jeune homme *s'agenouilla*, *tendit* la tête *; la hache brilla dans l'air*, et *retomba* aussitôt avec bruit. Un ruisseau de sang *jaillit* sur l'estrade et *se confondit* avec celui du cadavre ; et la tête, *bondissant* plusieurs fois sur le pavé rougi, *roula* jusqu'aux pieds de Charles'(13)
La Vénus d'Ille	Prosper Mérimée	Le silence régnait depuis quelque temps lorsqu'il fut troublé par *des pas lourds qui montaient l'escalier*. (752)

Figure 2(m)[16]

[16] All my Italics in Figure 2(m)

There are three key elements to note from Figure 2(m). The first is that, as is the case with visual imagery, textual images of movement are present in both *fantastique* and non- *fantastique* incidents. However, there are two distinct types of movement: ordinary, and unnatural. By 'ordinary movements', I am referring to movement which most readers are likely to have some understanding of through their own experience of the same. Examples include a character picking something up or walking somewhere. There are on the other hand numerous textual images of what I will be referring to as 'unnatural movement'. These would include movements which are not often or never seen in real life by present-day readers, as well as those which defy the physical laws of the ordinary world. Examples of unnatural movement in the selected corpus include the head rolling after the decapitation in *La Vision de Charles XI* or Octavie floating in *Une Heure*.

My analysis of the reader's kinaesthetic imagery in these texts will focus primarily on the abnormal movement in my chosen corpus. These movements are not necessarily unique to the *fantastique*; one could easily imagine text description of a decapitation in a historical fiction novel, or floating ghosts in a horror story. Across all genres, these descriptions of unnatural movement are likely to elicit vivid visual imagery because they combine two factors likely to heighten vivid visualisation: kinaesthetic imagery and emotion-evoking writing. This might seem contradictory to the body of research suggesting the positive correlation between vividness of kinaesthetic imagery and perceptual strength (Fernandino et al 2013). Isaac et al (1994) for example found that elite athletes had more vivid kinaesthetic imagery of physical movement compared to non-athletes, suggesting that personal experience of contributes to visualising that action vividly. As mentioned earlier however (104), measuring the perceptual strength of a standalone word can only offer a possible minimum idea of vivid visualisation; this can be significantly heightened by firstly, reading the words in a coherent sentence, and then further through emotion-evoking writing and kinaesthetic imagery.

Another key point to note from Figure 2(n) is the common absence of movement from the narrator or protagonist compared to the movement of the *fantastique* creature. In every instance, the

narrator is suggested to be still and watching or listening, often with some fear or confusion while the *fantastique* presence moves around. The differences in the various ambiguously supernatural encounters will be further considered in the segments dedicated to specific texts.

Vividness of Kinaesthetic Imagery versus non-kinaesthetic imagery

To my knowledge, no empirical study has been conducted on vivid visualisation in relation to kinaesthetic imagery versus non-kinaesthetic imagery when reading. However, there is some evidence to suggest the value of kinaesthetic imagery to vividness. As mentioned in Chapter 1, Daniel Allington's 2011 study suggested that the reader is unlikely to enjoy lengthy descriptions. Additionally, my own experiment results supported the idea of kinaesthetic imagery being valuable to vivid visualisation. As mentioned earlier, the segment with the highest vividness rating in *Apparition* for both groups was the segment in which the narrator describes travelling to the castle. It is worth noting that this passage also contains a notable amount of kinaesthetic imagery, including, 'Des branches d'arbres me caressaient le visage' (782), and 'J'attrapais une feuille avec mes dents et je la mâchais avidement' (782). It is possible that such kinaesthetic imagery contributed towards the heightened vividness reported by the participants at this point. This thesis thus argues that kinaesthetic imagery is likely to be more vividly visualised than non-kinaesthetic imagery. Decelerated kinaesthetic imagery might further increase the vividness elicited by kinaesthetic imagery.

Decelerated Kinaesthetic Imagery

The previous section established how kinaesthetic imagery might be visualised more vividly than non-kinaesthetic imagery. It is additionally likely that a decelerated movement is visualised more vividly than non-decelerated kinaesthetic imagery. Deceleration can be defined as the slowing down of a physical movement. I am arguing that when the text description of a movement is slower than it normally is when done in real life, the attention drawn to the detail of the movement should contribute to a reader's vividness of visualisation. This idea is yet to be significantly investigated through experimentation but has been discussed as a possible hypothesis to increase visualisation.

Several scholars have drawn attention to the idea of 'dynamic veracity', which can be defined as the claim that 'the time a text passage takes to read ought to be commensurate with the duration of the described action as performed in the real world' (Grethlein and Huitink 73) to maximise vividness. It is possible that vividness is increased when, rather than being evoked with dynamic veracity, an action takes longer to read about than it would take to occur in the real world. While dynamic veracity can increase vividness, slowing down an action might do so even more optimally. The 'deceleration of action' refers to a long and often detailed description of a physical action in a text which would take less time to do if the action were carried out in real life. Renate Brosch makes a strong claim for a positive correlation between the deceleration or elongation of action and vividness of visualisation in her paper 'What We See When We Read' (2018). Basing her hypothesis on Esrock's and Kuzmičová's[17] arguments that a text which rapidly changes visual perspective is more difficult for the reader to visualise, she writes, 'We can therefore further assume that an elongation in narrated time (slow-down), often combined with a closely focussed attention by a fictional character on an object, promotes especially vivid visualisations' (141).

[17] Page 419 of 'Visual Imagery in Reading'.

It should be noted that Brosch's argument is, as she herself acknowledges, an assumption based on a claim made by Esrock and Kuzmičová. As mentioned earlier, there has been no empirical research to support this hypothesis, but it is likely to be a valid observation. Writers tend to slow down the pace of a text to increase suspense before a significant event takes place. Edgar Allan Poe's *The Tell-Tale Heart*, which has been mentioned before in Chapter 2 tells the story of a madman who is increasingly disturbed by his neighbour, an old man who has a glass eye. The passage describes his movement just before he kills the man.

> The eighth night I was more than usually careful as I opened the door. The hands of a clock move more quickly than did my hand. Never before had I felt so strongly my own power; I was now sure of success. The old man was lying there not dreaming that I was at his door. Suddenly he moved in his bed. You may think I became afraid. But no. The darkness in his room was thick and black. I knew he could not see the opening of the door. I continued to push the door, slowly, softly. I put in my head. I put in my hand, with the covered light. Suddenly the old man sat straight up in bed and cried, "Who's there??!" I stood quite still. For a whole hour I did not move. Nor did I hear him again lie down in his bed. He just sat there, listening. Then I heard a sound, a low cry of fear which escaped from the old man. Now I knew that he was sitting up in his bed, filled with fear; I knew that he knew that I was there. He did not see me there. He could not hear me there. He felt me there. Now he knew that Death was standing there. Slowly, little by little, I lifted the cloth, until a small, small light escaped from under it to fall upon — to fall upon that vulture eye! (65)

The extract above is an example of how writers slow down actions to increase suspense. In this case, the act of the unnamed narrator moving towards the old man's bed is decelerated as he slowly opens the door and then moves towards his bed. I would argue that a decelerated action works on the same principle that is established when the pace of a narrative is slowed down for suspense. In the case of the latter, the reader's vividness is heightened because they are actively anticipating a resolution to the tension in the plot. In the former, as a basic action is slowed down beyond dynamic

veracity, the reader's vividness of visualisation is heightened as they are actively anticipating the completion of the action being described.

Brosch does not make any distinction between the deceleration of an object-focused action and a movement-focused action. With the former, I am referring to a text image which begins with an action, such as looking at a character, but then focuses only on the details of the object of the gaze. In Gautier's La Morte Amoureuse, for example, the description of Romuald seeing Clarimonde for the first time extends over an entire page, even though it seems to have been a momentary glance. This is similar to the example used by Brosch from Alice Munro's 'Something I've Been Meaning to Tell You' (1974), which describes one of the characters, Et, looking at a photo of her sister (Brosch 141). The text reads as follows.

> She was looking at a picture taken of them, of Char and herself and their brother who was drowned [...] Char had pinned her front hair up for the picture and was wearing a bright blue, ankle-length silk dress of course the colour did not show with complicated black velvet piping. She was smiling slightly, with great composure [...] Her beauty was not the fleshy timid sort most often featured on calendars and cigar boxes of the period, but was sharp and delicate, intolerant, challenging. (65)

As evident, the above passage describes a character looking at an object that is not moving. It contains a lengthy object description as opposed to movement description. The phrase 'movement-focused action', on the other hand, refers to a textual image which emphasises the significant time or effort taken to perform an action. Such a deceleration can be found in, for example, Kafka's *The Metamorphosis* (1915). The protagonist, Gregor, who has transformed into an insect, is described trying to unlock his door with extreme difficulty:

> '[…] using all the strength he could muster and nearly fainting, he bit blindly into the key. As the key turned further round in the lock, he danced wildly round it too. He kept himself upright only by his mouth now, dangling from the key as necessary or pressing it down again with the entire weight of his body.' (The Metamorphosis 38)

For any able-bodied reader, the act of unlocking a door with a key is usually very quick and effortless. Therefore, when reading about it in passing, they would visualise it fleetingly. Kafka's description of Gregor's struggle as he tries to undertake this simple action for a long amount of time in conjunction with the clear pain it causes him, leads the reader to visualise the moment with heightened vividness both because of the descriptive emotion-evoking writing and the deceleration of action.

Considering that kinaesthetic imagery is likely to be visualised more vividly than non-kinaesthetic imagery, unlike Brosch, I am making a similar distinction between decelerated object-focused description (the Munroe example) and movement-focused description (the Kafka example) and arguing that only the latter heightens vividness.

Modalities used in the ambiguously supernatural incident

This chapter has already established the distinction between the two types of modalities in the Lancaster Norms: perceptual modalities (visual, auditory, haptic, olfactory, gustatory, interoceptive), and action effectors (leg-foot, hand-arm, head, mouth, torso). Before discussing how perceptual strength, emotional response, and kinaesthetic imagery heighten vivid visualisation during the key segment in the corpus texts, it is useful to get a sense of which perceptual modalities and action effectors *should* be used by the reader based on the text imagery in the key segment containing the ambiguously supernatural incident. The following table contains a description of the ambiguously supernatural incident in each *fantastique* text in the corpus and which modalities are used as per the events which occur in the text.

		Visual	Auditory	Haptic	Interocep-tive	Ol-fac-tory	Gus-ta-tory	Foot-leg	Hand-arm	Head	Mouth	Torso
Une Heure	Claims to see Octavie, she moves away from him, then presses down on his body while he is lying down	X		X							X	X
Inès	Inès appar-ently shouts ‘Me voilà !’, comes in running, takes off veil	X	X					X	X	X	X	
La Caf-etière	Sees the portraits come to life	X						X	X		X	X

La Morte Amoureuse	Clarimonde sucks Romuald's blood	X	X	X			X			X	X	X
La Vision de Charles	Seeing the spectres, the decapitation and declaration	X	X	X				X	X	X	X	X
La Vénus d'Ille	Hearing heavy footsteps on the stairs		X					X				
Lui ?	Sees man in armchair, reaches out, he disappears	X		X					X			
Apparition	Turns around, sees woman standing behind him, combs her hair	X	X	X	X				X	X	X	X

Figure 2(n)

Figure 2(n) indicates that there is a visual component to the text imagery at the key incident in all texts with the exception of *La Vénus d'Ille*. The other modalities vary, but for this chapter, it is worth noting that *Inès de Las Sierras*, *La Cafetière, La Morte Amoureuse*, and *La Vision de Charles* all contain movement using the action effectors, with *La Cafetière* scoring on four of the five action effectors and *La Vision de Charles* scoring on all of them. The extent to which these text descriptions are seen in the Lancaster Norms perceptual strength ratings as well as in relation to emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery will now be discussed for four of the eight corpus texts, beginning with *La Vision de Charles XI*. A discussion on what is meant by the term 'reader' in these analyses can be found in Chapter 1 (90).

La Vision de Charles XI[18]

La Vision de Charles XI tells the story of the Swedish King Charles XI, who sees his throne room lit up from his window. When entering it with his domestic help, he seems to enter an execution scene where he allegedly witnesses a trembling corpse, a young child, and an old man, as well as a mass of faceless audience members. A prisoner is brought in and executed; his head rolls over and stains Charles's shoe with blood. One of the 'fantômes' (470) declare what Charles has witnessed to be an event which will take place five reigns after his own. The entire scene is said to disappear. The conclusion to the story reveals the identity of those in Charles's *vision* as those of a king who was assassinated five reigns after Charles's (the corpse), the king's uncle (the old man), the king's successor (the child), and the king's assassin (the prisoner). The following graph shows the pattern for the visual and action effector modalities across the Lancaster Norms.

[18] The X- axis labels for all paragraph segments for each graph can be found in the Appendix for Chapter 2.

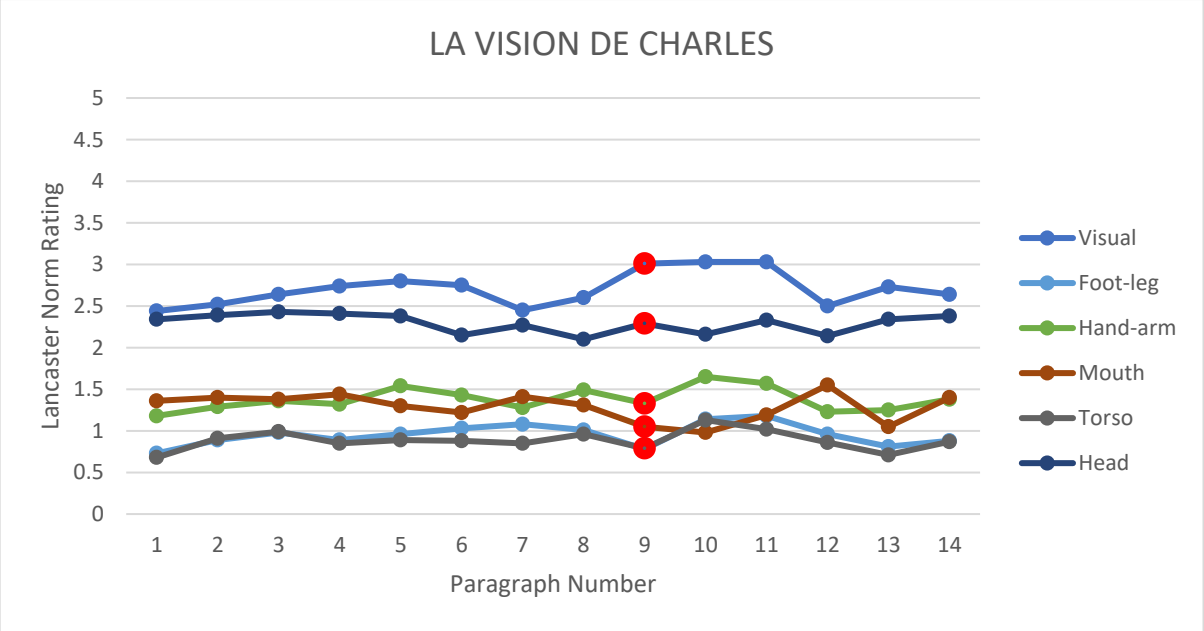


Figure 2(o)

Perceptual strength: Perceptual Modalities

The above graph shows the perceptual strength patterns in *La Vision de Charles* using the Lancaster Norms (Lynott et al 2020). A key feature to note in Figure 2(o) which is also the case for all the other graphs is the higher ratings of the visual modality as compared to the action effectors. This difference will be further unpacked in Chapter 5 with the experiment results but likely occurs because of how dominant the visual modality is for most words. As will be further discussed in Chapter 3 (169), most words on the Lancaster Norms rate highly on the visual modality compared to the others. Additionally, words which have a higher rating on another modality, e.g., 'laugh', which rates highly on the auditory modality still hold a rating for the visual, while highly-rated visual words score very little on the other modalities.

This chapter is attempting to establish that the ambiguously supernatural incident in each *fantastique* work within the corpus is likely to be visualised vividly by the reader for its high perceptual strength, emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery. Following the spike, there should be a noticeable drop in vividness caused by the difficulty in

understanding the ambiguously supernatural incident. As mentioned earlier (96), there is little research on what causes the drop. In *La Vision de Charles*, two key features likely to make the ambiguously supernatural incident vivid for the reader are perceptual strength and descriptive emotion-evoking writing. The introduction discussed how there are two kinds of ambiguously supernatural incidents; those which are briefly described, and those which take up a larger portion of the narrative. *La Vision de Charles* can be said to fall within the first category. The *fantastique* incident itself is brief. As seen in Figure 2(p), it runs across three segments.

The average perceptual strength per segment ratings seen in Figure 2(o) as well as the other Lancaster Norms graphs is based on how easy it is to elicit mental imagery of the nouns and verbs present in that segment for the visual modality. The most perceptually strong segment in a *fantastique* text does not necessarily have to be the ambiguously supernatural segment as it is is not the sole contributor to vividness of visualisation. However, In *La Vision de Charles*, the most visually perceptually strong points of the text do occur during the ambiguously supernatural incident (Points 9,10, and 11) which should also elicit the highest amount of emotional response.

The text at Segment 9 reads as follow.

> Une assemblée immense couvrait les bancs. Les quatre ordres de l'État siégeaient chacun à son rang. Tous étaient habillés de noir, et cette multitude de faces humaines, qui paraissaient lumineuses sur un fond sombre, éblouissaient tellement les yeux, que, des quatre témoins de cette scène extraordinaire, aucun ne put trouver dans cette foule une figure connue. Ainsi un acteur vis-à-vis d'un public nombreux ne voit qu'une masse confuse, où ses yeux ne peuvent distinguer un seul individu. (Mérimée 469)

Most words in this paragraph have not been included in Desrochers's lists. However, the average across the thirteen included words (*immense*, *bancs*, *ordres*, *rang*, *habillé*, *noir*, *faces*, etc) is 4.7 out of a possible 7, suggesting this a perceptually strong passage. Similarly, on the Lancaster Norms, the average for the visual modality at the key segment (9) is 3.01 out of a possible 5. To compare, the

average of the previous point was 2.6. The increased perceptual strength of the segment containing the ambiguously supernatural incident encourages the idea that this passage contains several words which are easily visualisable for the reader, which should contribute towards increasing their vividness of visualisation. This increase might further be compounded by the emotion-evoking text of this passage.

Emotion-evoking writing

As mentioned in the introduction (22), negative emotion-evoking writing is often a key characteristic of a *fantastique* work and features in three different ways: literal, descriptive, and bodily emotion-evoking writing. As in many *fantastique* texts, literal and bodily emotion-evoking writing are used before and after the ambiguously supernatural incident in *La Vision de Charles*, while descriptive emotion-evoking writing is used during the incident (120). An example of literal expression can be found in, 'Ses trois acolytes, poussés par la *curiosité*, plus forte que la *peur*, et peut-être *honteux*[19] d'abandonner leur roi, entrèrent avec lui' (469). Examples of body language include, 'on le vit pâlir' (467) and 'Sire, répondit le comte en reculant d'un pas' (468).

The heightened perceptual strength continues across the *fantastique* incident for points 10 and 11 which describe the three distinct figures in the room and the decapitation of the man respectively. Point 10 reads as follows.

> Sur le trône élevé d'où le roi avait coutume de haranguer l'assemblée, ils virent un cadavre sanglant, revêtu des insignes de la royauté sa droite, un enfant, debout et la couronne en tête, tenait un spectre à la main ; à sa gauche, un homme âgé, ou plutôt un autre fantôme, s'appuyait sur le trône. (469)

The quantified nouns in this paragraph have an even higher average perceptual strength rating of 6.25 out of 7 on Desrocher's scale. The descriptive emotion-evoking writing across segments 9 and

[19] My italics

10 encourages the reader to feel both fear and disgust. The word *sang* has a particularly high perceptual strength score of 6.62 on Desrocher's scale, suggesting it is easy for the reader to visualise. Beyond the descriptive emotion-evoking writing using a bleeding corpse, the reader's vividness should also be heightened with the reference to blood because of its association with the colour red. The word *rouge* also has a very high perceptual strength of 6.36/7 on Gonthier's scale and in the Lancaster Norms (4.56/5). Additionally, this is the only mention of a bright colour in the text; the rest largely contains references to the dark, e.g. 'La nuit était sombre et la lune à son premier quartier' (467), and light, 'Les fenêtres de cette salle semblaient en ce moment éclairées d'une vive lumière'(467). The end of the ambiguously supernatural incident in Segment 11 describes the execution of a man, whose head 'bondissant plusieurs fois sur le pavé rougi, roula jusqu'aux pieds de Charles, qu'elle teignit de sang' (470). Similar to the bleeding corpse, the images of flowing blood mixing with that of the corpse and the decapitated head rolling and reaching Charles's shoe may elicit disgust for the reader with its use of descriptive emotion-evoking writing. It is also likely to be a particularly striking moment as it confirms the contact of an ambiguously supernatural element (blood) with the ordinary human protagonist (Charles). It is worth noting that though the action effectors are not as highly rated as expected, there is still a strong positive correlation (0.70) between the visual and hand-leg modalities, suggesting that the reader's kinaesthetic imagery when reading *La Vision de Charles* might heighten in conjunction with their visual imagery, creating a more vivid mental imagery overall. The disappearance of the ambiguously supernatural characters, which has some emphasis on the auditory as well as the visual, will be discussed in the next chapter (197).

The descriptive emotion-evoking writing in the ambiguously supernatural incident of *La Vision de Charles* might thus contribute towards heightening the reader's vividness of visualisation by encouraging the reader to feel negative emotions often associated with the *fantastique* such as fear and disgust.

Action Effectors and Kinaesthetic Imagery in *La Vision de Charles*

The first key element to note about the action effectors in Graph 2(p) is that the head modality is rated more highly than all the other action effectors, like the visual versus the other sensory modalities. This is likely because of its broader categorisation; while action effector modalities such as 'footleg' had a smaller number of words rated highly for the modality that were directly associated with the body part, e.g. run (4.7 out of 5), the head modality was rated highly for numerous different word types, including 'smelled' (4.95), 'eyepatch' (4.9), and Youtube (4.84). It seems that participants associated the 'head' modality with both things worn on or around the head, e.g. 'headphones' (4.88), and concepts using the mind, e.g. 'smelled'.

The second and more crucial element to note from Figure 2(p) is that there is no clear rise across the action effectors at the key segments in the same way as there is in the visual modality across Points 9 to 13, where the ambiguously supernatural incident occurs. The text in segments 9 and 10 (seen on 139-141) focus on describing the visual aspects of the *fantastique* scene. Segment 11, on the other hand, focuses more on the action:

> Celui qui *marchait* le premier, et qui semblait être le plus important des prisonniers, *s'arrêta* au milieu de la salle, devant le billot, qu'il *regarda* avec un dédain superbe. En même temps, le cadavre parut *trembler* d'un mouvement convulsif, et un sang frais et vermeil *coula* de sa blessure. Le jeune homme *s'agenouilla*, *tendit* la tête ; la hache *brilla* dans l'air, et retomba aussitôt avec bruit. Un ruisseau de sang *jaillit* sur l'estrade et se *confondit* avec celui du cadavre ; et la tête, *bondissant* plusieurs fois sur le pavé rougi, roula jusqu'aux pieds de Charles, qu'elle teignit de sang.[20] (Mérimée 470)

As evident from the italicised words, there is a significant number of action words in these segments. The previous segment contained no movement descriptions. As argued in this chapter, this segment, which thus contains high perceptual strength, emotion-evoking writing, and perceptual

[20] My Italics

strength, should thus be highly vivid. However, this is not reflected in the norms: there is no significant rise in any of the modalities at the *fantastique* point on Figure 10. As discussed earlier (104), the Lancaster Norms cannot account for how mental imagery might change when readers read an entire sentence rather than a standalone word. This seems to be particularly true when it comes to sentences where readers could use their kinaesthetic imagery. While the use of multiple action effectors might be effective when it comes to differentiating between the various possible bodily movement *words* described in a text, it does not work as well when assessing kinaesthetic vividness when reading a sentence. However, Figure 2(o) offers an indication of how many perceptually strong action words are used in this key segment, and thus helps assess the extent to which kinaesthetic imagery plays a role in this extract when these words are read in a sentence.

There are a number of descriptions relating to movement within the ambiguously supernatural incident, e.g. that of a trembling corpse with 'le cadavre parut trembler d'un mouvement convulsive' (470). The verb 'trembler' as well as the 'sang frais' of his wound causes the reader to visualise a living human body rather than a corpse, but with the awareness that the textual image is meant to represent a corpse. The words 'trembler' and 'convulsive' are disturbing in reference to a corpse as they suggest not only movement, but constant and rapid movement from a human form (corpse) who should not move at all, contributing towards the descriptive emotion-evoking writing. Neither of the two words are part of Desrocher's perceptual strength word bank. In the Lancaster Norms, the ratings are as follows.

Word	Auditory	Haptic	Interocep-tive	Visual	Foot_ leg	Hand_a rm	Head	Mouth	Torso
CONVULSIVE	0.538	0.769	3.923	3.538	1.722	2.056	1.667	1.667	2.333
TREMBLE	1.118	2.353	3.118	3.353	2.235	3.294	2.412	1.647	2.471

Figure 2(p)

The two words score highly here on the interoceptive and visual modalities, but less so in the action modalities. This is likely because of the more solitary associations participants made when reading each word individually. For example, *tremble* scores 3.294 on the hand/arm modality, perhaps suggesting that many participants thought of shaky hands as the first association with the word. However, if they were to read it in *La Vision de Charles* where Mérimée specifies an entire body trembling, the ratings for the torso effector might have been much higher.

Overall, in *La Vision de* Charles, vivid visualisation during the ambiguously supernatural incident is likely to be caused by its high visual perceptual strength, emotion-evoking writing, and kinaesthetic imagery.

The Drop

The primary hypothesis regarding range in this thesis argues for both a noticeable increase in vividness during the key segment and a noticeable drop after the key segment. While there is no existing research on what causes drops in vividness of visualisation when reading, a plausible hypothesis is that the absence of features argued to heighten vividness might contribute towards it. Figure 2p indicates that there is a drop in visual perceptual strength from 3.03 to 2.5 (out of a possible 5) after the ambiguously supernatural incident, suggesting the text for that segment takes more effort to visualise for the reader. The text reads as follows:

> Alors les formes des nombreux personnages de cette étonnante assemblée commencèrent à devenir moins nettes et ne semblaient déjà plus que des ombres colorées, bientôt elles disparurent tout à fait ; les flambeaux fantastiques s'éteignirent, et ceux de Charles et de sa suite n'éclairèrent plus que les vieilles tapisseries, légèrement agitées par le vent. On entendit encore, pendant quelque temps, un bruit assez mélodieux, qu'un des témoins compara au murmure du vent dans les feuilles, et un autre, au son que rendent les cordes de harpe en cassant au moment où l'on accorde l'instrument. Tous furent d'accord sur la durée de l'apparition, qu'ils jugèrent avoir été d'environ dix minutes. (470)

The visual perceptual strength of this text is lower compared to the previous segments. Earlier, it was argued that low perceptual strength can be heightened when the words are combined into a sentence. However, in this case, some sentences are not likely to further facilitate vividness of visualisation. The phrase, 'ombres colorées, for example is difficult to visualise considering it puts together two ideas that do not go together. More largely, as discussed in the introduction (42), in brief ambiguously supernatural incidents such as that in *La Vision de Charles XI*, the reader is likely to have to use more of a cognitive load in understanding and reconciling the ambiguously supernatural incident with the earlier-presumed ordinary storyworld.

In *La Vision de Charles XI*, therefore, vividness of visualisation is likely to be heightened during the ambiguously supernatural incident through a combination of high perceptual strength which makes the events easier to visualise, the emotion-evoking writing, and the kinaesthetic imagery. There is then likely to be a drop following the ambiguously supernatural incident through both the reader's confusion and the lower perceptual strength of the ambiguously supernatural incident's disappearance.

Inès de las Sierras

Inès de Las Sierras is often divided into two halves based on how it was published. The first half tells the story of three travellers who spend a night at the Ghisimondo castle, where a young woman named Inès was murdered by her husband three hundred years earlier. According to myth, she then came back to life a year later to avenge her death by killing her husband and his friends. During their night in the castle, a woman joins them at dinner matching the physical appearance of Inès, wearing her outfit, repeating all the actions Inès carried out in the myth. She then disappears. In the second half of the story, it is revealed that the woman was not really the ghost of Inès but a singer who had been living in the castle at the time under a psychological delusion of being Inès due to a betrayal by a lover. This text differs from that of *La Vision de Charles* in two ways. *Inès de Las Sierras* is a *nouvelle*

rather than a *conte*. As discussed in the introduction, examples of the former within the *fantastique* genre tend to contain increased description in the narrative (though not necessarily for the *fantastique* incident itself, 27). In *Inès de Las Sierras*, however, the ambiguously supernatural incident is also much longer than in *La Vision de Charles*. The hypothesis being presented for the spike during the ambiguously supernatural *intrusion* followed by a drop is nonetheless still being argued here.

Only the first part of the book will be discussed in this thesis as the ambiguously supernatural incident occurs within it and the two books discuss two distinct periods in the narrator's life. The perceptual strength per segment for the first book is as follows based on the Lancaster Norms:

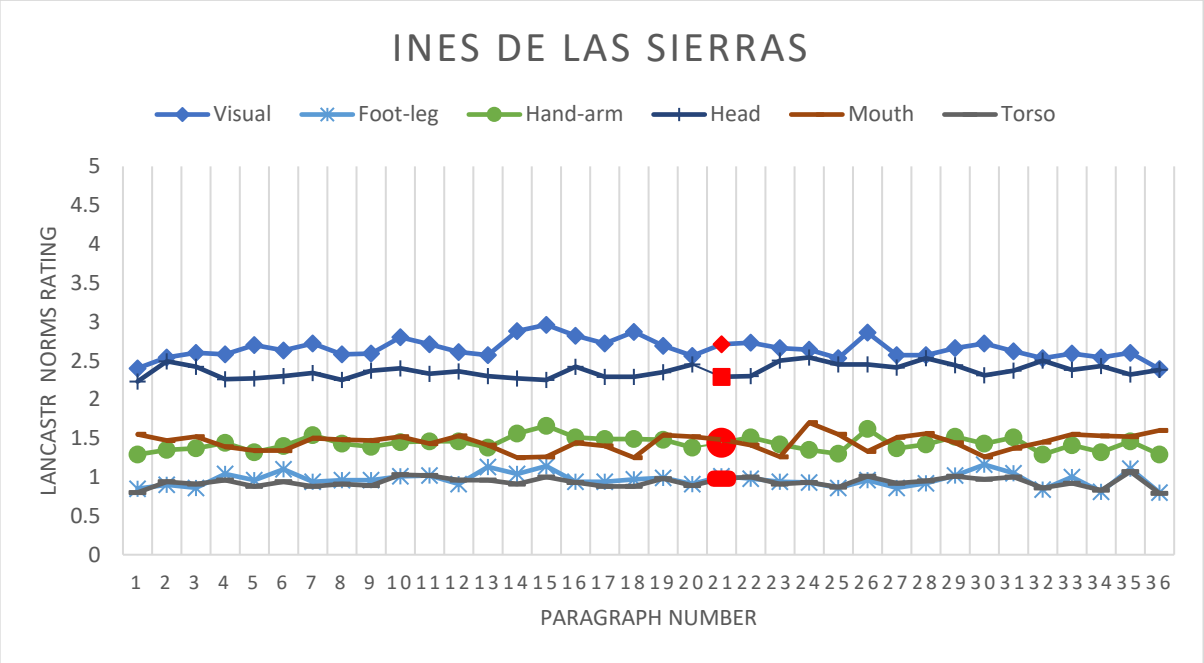


Figure 2(q)

The key segment occurs at Point 21, when the travellers toast Inès de las Sierras at midnight, celebrating her non-appearance and she arrives: 'A Inès de las Sierras! répétai-je en rapprochant mon verre à demi vide de leurs verres déjà pleins' (Nodier 27). Inès's appearance begins with an auditory cue after the men toast her name, as in the myth: 'Me voilà! cria une voix qui partait de la galerie des tableaux' (27. The vividness of this and other auditory cues in the selected corpus will be discussed in

the next chapter, '*Auditory and Haptic Imagery in the Fantastique*'. The visualisation continues from the auditory cue as follows :

> Au même instant, nous discernâmes dans la partie la moins éclairée de la salle, un blanc fantôme qui courait vers nous d'une incroyable rapidité, et qui, parvenu à notre portée, laissa tomber son linceul. Il passa entre nous, car nous étions debout, la main sur la garde de nos épées, et s'assit à la place d'Inès. – Me voilà ! dit le fantôme en poussant un long soupir et en rejetant de droite et de gauche de longs cheveux noirs, négligemment retenus par quelques nœuds de ruban ponceau. Jamais beauté plus accomplie n'avait frappé mes regards. (27)

The vividness of imagery in response to this passage is likely to be heightened through perceptual strength, emotion-evoking writing, and kinaesthetic imagery.

Perceptual Strength: Perceptual Modalities

The perceptual strength of the quantified words in this paragraph on the Desrocher's scale averages 5.2/7, making it perceptually strong. However, there is notably no spike at this point in Figure 2(q). The most perceptually strong segment is Segment 15, which describes the travellers settling into the Ghisimondo Castle. It is thus suggested that Segment 15 is easier to visualise in terms of perceptually strong words for the reader. However, the higher-than-average perceptual strength of the key segment combined with the descriptive emotion-evoking writing likely contributes to the heightened vividness during the ambiguously supernatural incident.

Emotion-evoking Writing and Kinaesthetic Imagery

As in *La Vision de Charles*, the emotion-evoking writing occurs through description rather than literal expressions or body language. Both literal expressions of fear and body language feature in the emotion-evoking writing following the ambiguously supernatural incident (Segment 22). The descriptive emotion-evoking writing occurs during the key segment in *Inès de Las Sierras* firstly through the

reader's awareness of the significance of Inès's arrival, matching the events of the myth described to the characters which ends with her killing the travellers. This context awareness is compounded by the described kinaesthetic imagery in the scene of Inès running towards the travellers. The idea of the potentially threatening object coming towards the characters in the textual image is likely to encourage understanding of the mortal threat facing them. It is possible that the use of the verb *courir* also adds a human dimension to the otherwise physically non-human concept of *fantôme*, which may not fit in with the reader's initial idea of a *fantôme* as more transparent and weightless. The concept of weight versus weightlessness for the *fantastique* creature will be revisited in the Haptic section of Chapter 3 (204). As in *La Vision de Charles*, however, the likely role played by kinaesthetic imagery in heightening vividness in *Inès de Las Sierras* is not reflected in Figure 2(q).

It is worth mentioning that the ambiguously supernatural incident is particularly long in *Inès de Las Sierras*. Following her arrival the reader is likely to gradually move their comprehension of Inès from *fantôme* to human, especially with the use of the verb *courait* followed by the revelation of her hair, which is also particularly vivid, with *cheveu* being rated at 6.6 and noir at 5.9. However, it is likely that her humanisation may not reduce the ambiguous nature of the *fantastique*, as Inès appears to be human in the myth as well. In *Reading, Cognition and Emotion* (2010), Michael Burke speculates that at any given moment when reading, the reader keeps four factors in mind:

> The immediate text that is being read.
>
> Sections of the previous text, either the last sentence that was read or more salient past sentences of fragments that are still available for recall.
>
> A reader's projected knowledge of how such texts often unfold and conclude
>
> Subconscious background information about previous reading experiences and previous experiences in general. (25)

The first two points of this process are particularly relevant to Inès's appearance. As the phantom assumes 'la place d'Inès' in the story, the reader's anticipation of the myth coming true is increasingly confirmed. This is likely to then add to the atmosphere of fear, as the myth ends with Inès killing the men she had dined with. Thus, the descriptive emotion-evoking writing combined with the high perceptual strength in the ambiguously supernatural passage contributes towards vivid visualisation in *Inès de Las Sierras*. However, the length of the passage does contribute towards a drop in vividness.

Drop

The primary three-part hypothesis in this thesis argues that the reader has a larger range of vivid visualisation when reading a *fantastique* as opposed to a non-*fantastique* text, caused by a spike in vividness at the introduction of the ambiguously supernatural incident followed by a drop after it. Despite the ambiguously supernatural incident continuing over eight segments in *Inès de Las Sierras* rather than being a brief encounter, the spike and subsequent drop is likely to occur. There is a slight rise seen in the perceptual strength ratings on the visual modality at Point 22, following the ambiguously supernatural incident. As it is thus argued that the next segment takes similar effort to visualise, perceptual strength does not contribute towards the drop in vividness here. However, there is likely to be a notable change in the type of emotion-evoking writing being used. The text at Segment 22, following the ambiguously supernatural incident, reads as follows.

> C'est une femme en effet, repris-je à demi-voix ; et puisqu'il est bien convenu entre nous que rien ne peut se passer ici qui ne soit parfaitement naturel, nous n'avons de conseils à prendre que de la politesse française. La suite expliquera ce mystère, s'il peut s'expliquer. Nous reprîmes nos places, et nous servîmes l'inconnue, qu paraissait pressée par la faim. Ell mangea et but sans parler. Quelques minutes après, elle nous avait oubliés tout-à-fait, et chacun des personnages de cette scène bizarre sembla s'être isolé en lui-même, immobile et muet, comme s'il avait été frappé de la baguette pétrifiante d'une fée. Bascara était tombé à mes côtés, et je l'aurais cru mort de terreur, si je n'avais pas été rassuré par le mouvement de ses mains palpitantes qui se

croisaient convulsivement en signe de prière. Boutraix ne laissait pas échapper un souffle ; une profonde expression d'anéantissement avait remplacé son audace bachique […]' (133)

It is evident that unlike the segment introducing the ambiguously supernatural incident, this segment contains numerous descriptions of literal and bodily emotion-evoking writing. Examples of literal expressions include, 'Je l'aurais cru mort de terreur', 'une profonde expression d'anéantissement', and bodily expressions include, 'immobile et muet, comme s'il avait été frappé de la baguette pétrifiante d'une fée' and 'ses mains palpitantes qui se croisaient convulsivement en signe de prière'. While these are also examples of emotion-evoking writing, I would argue that literal and bodily expressions of fear *following* the ambiguously supernatural incident are likely to reduce vividness of visualisation. The reader is likely to be less engaged with descriptions of the characters' emotional responses following the kinaesthetic imagery and descriptive emotion-evoking writing in the key segment. As discussed earlier in the section discussing decelerated kinaesthetic imagery (131), kinaesthetic imagery such as that of Inès running towards the characters is likely to encourage more vivid visualization than non-kinaesthetic imagery. *Inès de Las Sierras* falls into the category of the longer ambiguously supernatural incident; the readers are thus offered the opportunity to get accustomed to her presence. Following her appearance, readers are thus likely to understand that they have just surpassed a key moment in the story. It is possible that they are thus less interested in what follows, especially if the paragraph contains no development to the main plot with Inès and only describes the characters' feelings.

In *Inès de Las Sierras*, there is likely to be a spike during the ambiguously supernatural incident caused by perceptual strength, the descriptive emotionally evocative writing, and kinaesthetic imagery. Following Inès's introduction, the change in the style of emotion-evoking writing and reduced kinaesthetic imagery might be important contributors to the drop in vividness, despite the perceptual strength remaining the same.

La Cafetière

La Cafetière tells the story of a young man who is spending the night in a friend's mansion. At night, he claims to see the paintings and objects in his room come to life and host a ball. He takes part in the ball, falling in love with a woman named Angela who is present at the ball. At dawn, Angela collapses, and the narrator wakes up to find himself clutching the fragments of a broken coffee pot. He later finds out that Angela is the deceased sister of his host.

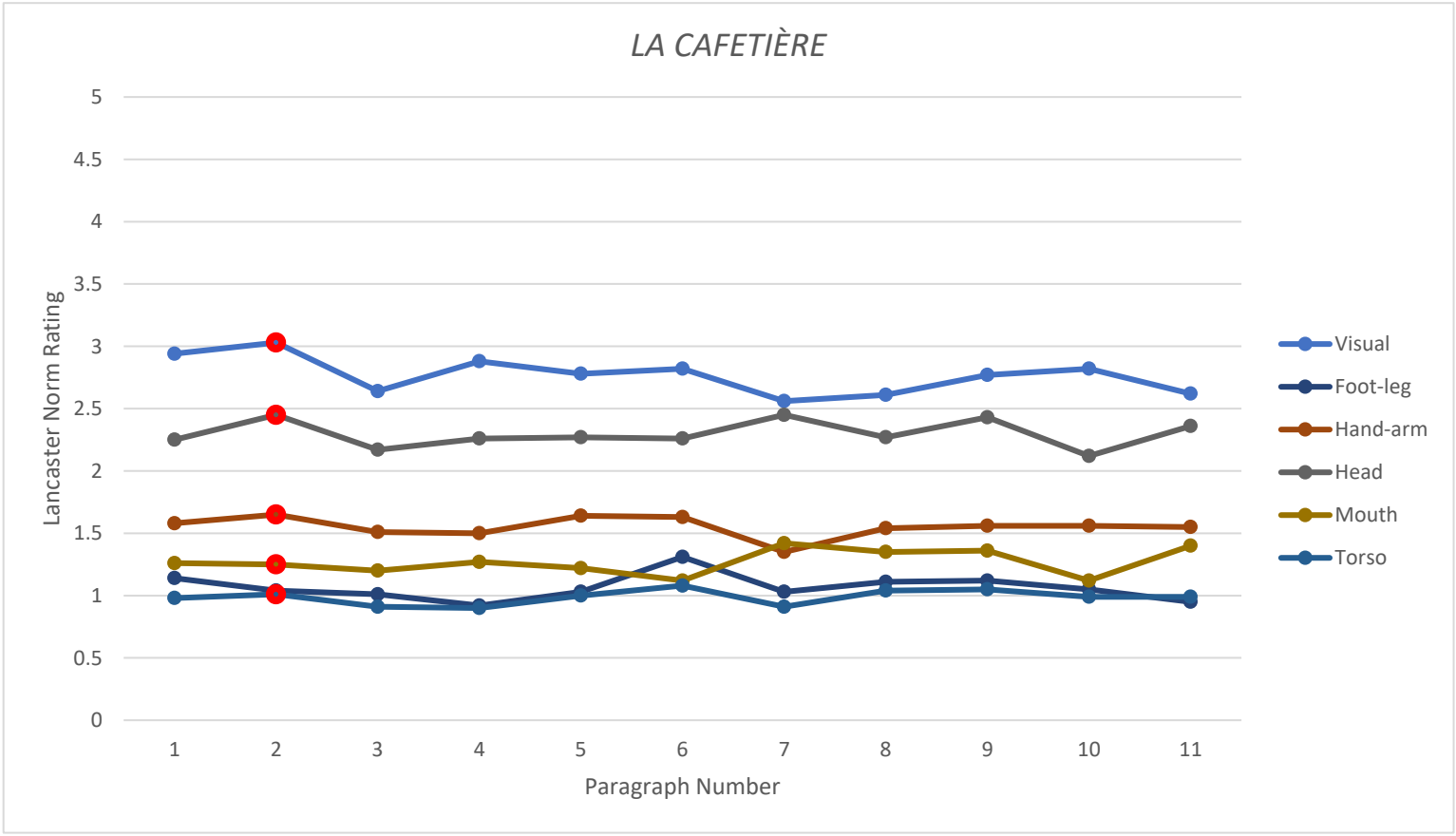


Figure 2(r)

Unlike most of the other texts in the corpus, vividness of visualisation in *La Cafetière* relies less on descriptive emotion-evoking writing as it does not inspire negative emotions. However, it does feature an ambiguously supernatural incident and some emotion-evoking writing. The key segment relies primarily on visual perceptual strength and kinaesthetic imagery.

Perceptual Strength

Like La Vision de Charles, Figure 2(r) shows a spike for perceptual strength at the ambiguously supernatural incident. This suggests that the text content at the ambiguously supernatural point is easier to visualise. The hypothesised drop in vividness is also reflected in the visual perceptual strength at Segment 3, following the introduction of the *fantastique* incident. In addition to the argued drop in vividness that should occur as the reader attempts to understand the ambiguously supernatural incident, it is therefore also suggested that the reader uses more effort to visualise the passage after the *fantastique* incident in La Cafetière, which should also cause a drop in vividness. The segment containing the ambiguously supernatural incident reads as follows:

> Tout à coup le feu prit un étrange degré d'activité ; une lueur blafarde illumina la chambre, et je vis clairement que ce que j'avais pris pour de vaines peintures était la réalité ; car les prunelles de ces êtres encadrés remuaient, scintillaient d'une façon singulière ; leurs lèvres s'ouvraient et se fermaient comme des lèvres de gens qui parlent, mais je n'entendais rien que le tic-tac de la pendule et le sifflement de la bise d'automne. Une terreur insurmontable s'empara de moi, mes cheveux se hérissèrent sur mon front, mes dents s'entrechoquèrent à se briser, une sueur froide inonda tout mon corps. La pendule sonna onze heures. Le vibrement du dernier coup retentit longtemps, et, lorsqu'il fut éteint tout à fait... Oh ! non, je n'ose pas dire ce qui arriva, personne ne me croirait, et l'on me prendrait pour un fou. (Gautier 4)

The Lancaster Norms graph for *La Cafetière* suggest that there are several perceptually strong words on the visual here. Some examples from Desrocher's scale include, "feu" (6.54), "chambre" (6.15), lèvre (6.76), pendule (6.12), cheveu (6.60), dent (6.77), and corps (6.04). It is however evident that this segment does not contain a lot of kinaesthetic imagery. It is worth noting that this passage is not entirely void of emotion-evoking writing. There are literal expressions of emotion-evoking writing, e.g. 'une terreur insurmountable s'empara de moi'. The section discussing the possible drop in vividness in *Inès de Las Sierras* suggested that literal and bodily expressions of emotion-evoking writing are likely to be vivid if written after the ambiguously supernatural incident (149). However, all three kinds

of emotion-evoking writing (120) are likely to heighten vividness if they precede the ambiguously supernatural incident. The slightly descriptive and all three kinds of emotion-evoking writing overlap during the ambiguously supernatural incident in *La Cafetière*. The following table contains an example of each:

Type of Emotion-Evoking Writing	Quote
Literal	'Une terreur insurmontable s'empara de moi' (4)
Descriptive	'Les prunelles de ces êtres encadrés remuaient' (4)
Bodily	'Une sueur froide inonda tout mon corps' (4)

Figure 2(t)

In this case, though the remainder of the ambiguously supernatural incident is not threatening to the protagonist, it could be argued that this specific segment containing the ambiguously supernatural incident may still use all types of emotion-evoking writing to heighten the reader's vividness of visualisation as it relates to the suspense in the narrative. At this point in their reading, the reader is not yet aware what the ambiguously supernatural incident will be like; the narrator's literal expression as well as the descriptions of paintings talking may thus cause them to anticipate something fear-related to follow. When it does not, it could cause a drop in the reader's vividness of visualisation.

Drops

Based on the primary hypothesis in this thesis, the drop in vividness in *La Cafetière* is argued to occur at Segment 3. The text reads as follows.

> Les bougies s'allumèrent toutes seules ; le souffler, sans qu'aucun être visible lui imprimât le mouvement, se prit à souffler le feu, en râlant comme un vieillard asthmatique, pendant que les pincettes fourgonnaient dans les tisons et que la pelle relevait les cendres. Ensuite une cafetière se jeta en bas d'une table où elle était posée, et se dirigea, clopin-clopant, vers le foyer, où elle

> se plaça entre les tisons. Quelques instants après, les fauteuils commencèrent à s'ébranler, et, agitant leurs pieds tortillés d'une manière surprenante, vinrent se ranger autour de la cheminée. Je ne savais que penser de ce que je voyais ; mais ce qui me restait à voir était encore bien plus extraordinaire. (4)

Similar to the drop following the ambiguously supernatural intrusion in *La Vision de Charles*, there is a drop in perceptual strength between Points 2 and 3, from 3.03 out of a possible 5 to 2.64. This passage is higher in kinaesthetic imagery than the ambiguously supernatural incident. However, the movement being described is of objects which do not move independently (coffee pots, arm-chairs). Thus, it is possible that this object-centred movement itself is visualised less vividly. Additionally, the emotion-evoking writing is lowered here with the change in tone of the text. Like *Inès de Las Sierras*, *La Cafetière* contains a lengthy ambiguously supernatural incident in which the protagonist repeatedly interacts with objects and people within the incident. This firstly, therefore, could reduce the reader's interest following the initial disruption of the assumed ordinary world as they get accustomed to the ambiguously supernatural incident. It is likely that the description, 'une cafetière se jeta en bas d'une table où elle était posée' reduces the idea of the protagonist facing any mortal threat for the reader, unlike in *Inès de Las Sierras*, where the movement of the possible 'fantôme' (Nodier 131) running towards the characters suggests to the reader that they might be in danger. Thus, while vividness of visualization might initially be heightened in *La Cafetière* with the introduction of the ambiguously supernatural incident, the subsequent absence of fear-related descriptive emotion-evoking writing and low visual perceptual strength following the ambiguously supernatural incident might then cause the reader's vividness of visualization to drop.

La Morte Amoureuse

La Morte Amoureuse uniquely contains more than one point at which the *fantastique* intervenes. The text describes the story of a priest, Romuald, who falls in love on the day of his ordination

ceremony with a woman he sees attending, Clarimonde. Soon after, he is summoned to her home one night as she has passed away. When he kisses her corpse, Clarimonde seemingly comes back to life and claims she will not die (Segment 23). Soon after, Clarimonde begins to visit Romuald at night, possibly in his dreams. He begins living an alternate life during these nightly visits with Clarimonde in Venice. Clarimonde's health deteriorates, until one day, Romuald cuts his finger; at this point, Clarimonde drinks his blood (Segment 35), revealing she is a vampire. She drinks his blood on a second occasion while he feigns unconsciousness (Segment 37). The story ends with Romuald and a senior priest, Sérapion throwing holy water on Clarimonde's tomb which allegedly reduces her to ashes.

La Morte Amoureuse uses both decelerated kinaesthetic imagery and emotion-evoking writing in its ambiguously supernatural incidents. The graph of *La Morte Amoureuse* is as follows.

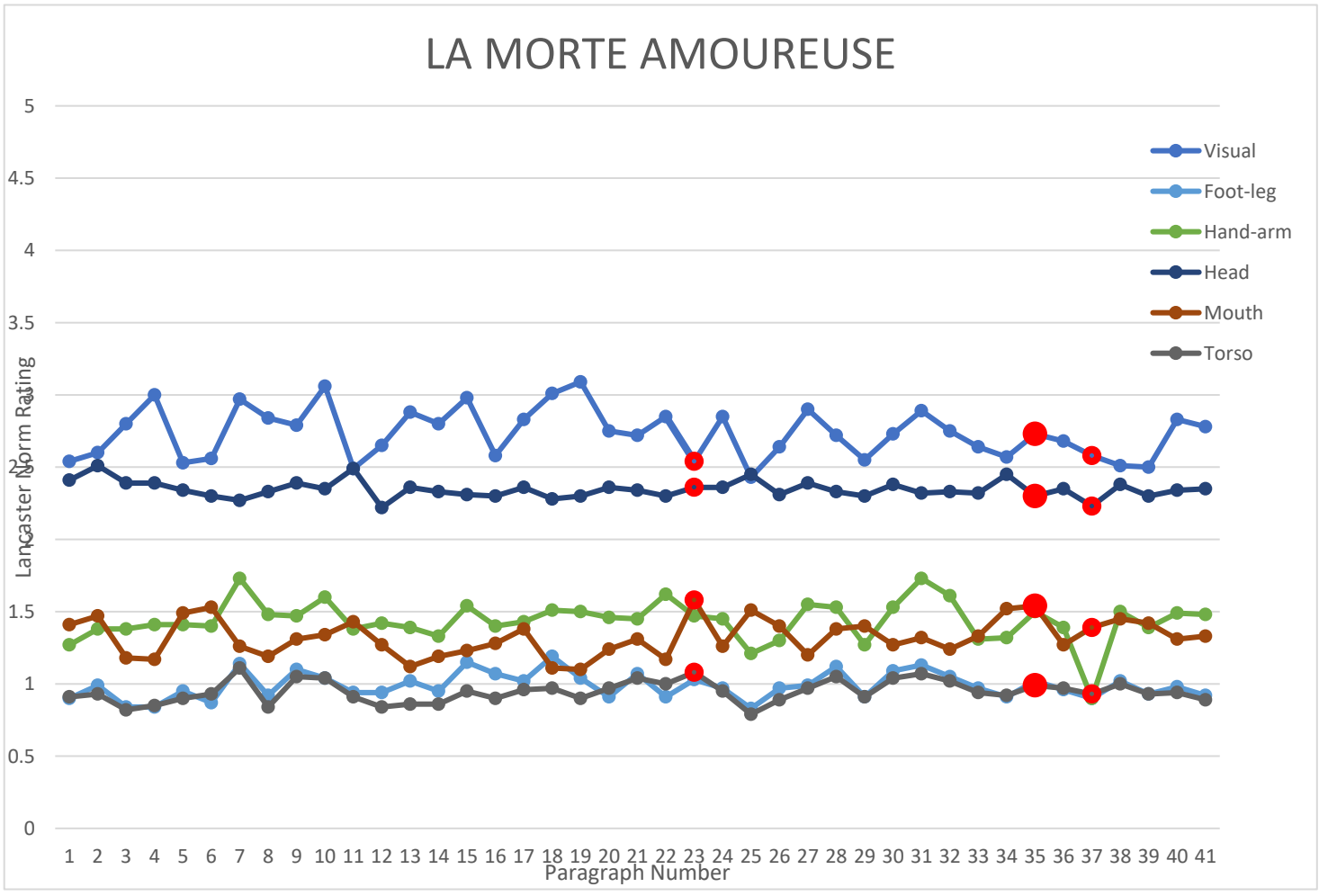


Figure 2(s)

As suggested by the summary and Figure 2(s), uniquely in this corpus, *La Morte Amoureuse* is being argued to have more than one point of ambiguously supernatural intervention. As discussed in the introduction (28), the ambiguously supernatural intrusion is said to occur at the first point when the rules of the ordinary world are disrupted; this occurs in *La Morte Amoureuse* at Point 23, when Clarimonde comes back to life after seemingly being dead. As was the case for Inès de Las Sierras, little mention is then made of Clarimonde's alleged supernatural nature; she is humanized in the time she spends with Romuald as they happily live together in Venice. In Inès, following her humanisation, she disappears. However, in *La Morte Amoureuse*, there is a second, different point of ambiguously supernatural intervention when the reader is asked to change their perception of Clarimonde from possibly human or ghost to possibly human or vampire. The first point when Clarimonde drinks Romuald's blood is then a second point of an unexpected supernatural intrusion. The third and final point can be said to occur when Clarimonde drinks Romuald's blood again. The third point will be discussed in Chapter 3 in relation to the haptic; the first and second points will be discussed here.

Clarimonde coming back to life

It is worth noting that the moment Clarimonde comes back to life showcases a notable drop in perceptual strength from the previous point describing the beauty of her corpse. The text for the passage describing the first ambiguously supernatural incident in *La Morte Amoureuse* reads as follows.

> La nuit s'avançait, et, sentant approcher le moment de la séparation éternelle, je ne pus me refuser cette triste et suprême douceur de déposer un baiser sur les lèvres mortes de celle qui avait eu tout mon amour. Ô prodige ! un léger souffle se mêla à mon souffle, et la bouche de Clarimonde répondit à la pression de la mienne : ses yeux s'ouvrirent et reprirent un peu d'éclat, elle fit un soupir, et, décroisant ses bras, elle les passa derrière mon cou avec un air de ravissement ineffable. " Ah c'est toi, Romuald, dit-elle d'une voix languissante et douce comme les dernières vibrations d'une harpe ; que fais-tu donc ? Je t'ai attendu si longtemps, que je suis

> morte ; mais maintenant nous sommes fiancés, je pourrai te voir et aller chez toi. Adieu, Romuald, adieu ! je t'aime ; c'est tout ce que je voulais te dire, et je te rends la vie que tu as rappelée sur moi une minute avec ton baiser ; à bientôt. " Sa tête retomba en arrière, mais elle m'entourait toujours de ses bras comme pour me retenir. Un tourbillon de vent furieux défonça la fenêtre et entra dans la chambre ; la dernière feuille de la rose blanche palpita quelque temps comme une aile a bout de la tige, puis elle se détacha et s'envola par la croisée ouverte, emportant avec elle l'âme de Clarimonde. La lampe s'éteignit et je tombai évanoui sur le sein de la belle morte. (540)

While the visual perceptual strength of this passage is low, it is worth noting that the perceptual strength rating for the mouth modality is particularly high, likely because of the use of words such as 'souffle' ('breath' scores 4.53 out of 5) and 'bouche' ('mouth' scores 4.90). This moment is likely to be vivid largely because of the descriptive emotion-evoking writing caused by Clarimonde unexpectedly coming back to life after several segments describing her room, her possessions, and her corpse. Additionally, the only kinaesthetic imagery in the passage occurs around Clarimonde; her corpse is the only character that moves. It is possible that the reader's vividness is thus further heightened by the kinaesthetic imagery combined with the descriptive emotion-evoking writing.

Drop

As per the Lancaster Norms, the drop following the first ambiguously supernatural incident in *La Morte Amoureuse* is not caused by an absence of visual perceptual strength; there is a rise in the number of perceptually strong words on the visual modality at Point 24. The text reads as follows.

> Quand je revins à moi, j'étais couché sur mon lit, dans ma petite chambre du presbytère, et le vieux chien de l'ancien curé léchait ma main allongée hors de la couverture. Barbara s'agitait dans la chambre avec un tremblement sénile, ouvrant et fermant des tiroirs, ou remuant des poudres dans des verres. En me voyant ouvrir les yeux, la vieille poussa un cri de joie, le chien jappa et frétilla de la queue ; mais j'étais si faible, que je ne pus prononcer une seule parole ni faire aucun mouvement. J'ai su depuis que j'étais resté trois jours ainsi, ne donnant d'autre signe d'existence

> qu'une respiration presque insensible. Ces trois jours ne comptent pas dans ma vie, et je ne sais où mon esprit était allé pendant tout ce temps ; je n'en ai gardé aucun souvenir. Barbara m'a conté que le même homme au teint cuivré, qui m'était venu chercher pendant la nuit, m'avait ramené le matin dans une litière fermée et s'en était retourné aussitôt. Dès que je pus rappeler mes idées, je repassai en moi-même toutes les circonstances de cette nuit fatale. D'abord je pensai que j'avais été le jouet d'une illusion magique ; mais des circonstances réelles et palpables détruisirent bientôt cette supposition. Je ne pouvais croire que j'avais rêvé, puisque Barbara avait vu comme moi l'homme aux deux chevaux noirs et qu'elle en décrivait l'ajustement et la tournure avec exactitude. Cependant personne ne connaissait dans les environs un château auquel s'appliquât la description du château où j'avais retrouvé Clarimonde. (540)

Though higher in perceptually strong words on the visual modality (2.85 compared to 2.54 for the previous segment), there is a notable change in the style of emotion-evoking writing in this passage similar to that in *Inès de Las Sierras*. As opposed to the highly descriptive emotion-evoking writing in the previous segment, the focus here turns to more literal expressions of emotion through Romuald's reflections. Examples include, 'je repassai en moi-même toutes les circonstances de cette nuit fatale', and 'je ne pouvais croire que j'avais rêvé'. Though perhaps useful in maintaining the ambiguity around Clarimonde coming back to life, this passage is likely to be of less interest to the reader as it is largely descriptive, uses literal and bodily emotion-evoking writing rather than the descriptive, and does not further the plot directly in relation to the ambiguously supernatural incident with Clarimonde and the threat it may imply.

Clarimonde as a vampire: Perceptual Strength

A second point of ambiguously supernatural intrusion occurs in *La Morte Amoureuse* at the point where Clarimonde is allegedly revealed to be a vampire. The text for the segment is as follows.

> Le sang partit aussitôt en filets pourpres, et quelques gouttes rejaillirent sur Clarimonde. Ses yeux s'éclairèrent, sa physionomie prit une expression de joie féroce et sauvage que je ne lui avais

> jamais vue. Elle sauta à bas du lit avec une agilité animale, une agilité de singe ou de chat, et se précipita sur ma blessure qu'elle se mit à sucer avec un air d'indicible volupté. Elle avalait le sang par petites gorgées, lentement et précieusement, comme un gourmet qui savoure un vin de Xérès ou de Syracuse ; elle clignait les yeux à demi, et la pupille de ses prunelles vertes était devenue oblongue au lieu de ronde. De temps à autre elle s'interrompait pour me baiser la main, puis elle recommençait à presser de ses lèvres les lèvres de la plaie pour en faire sortir encore quelques gouttes rouges. Quand elle vit que le sang ne venait plus, elle se releva l'œil humide et brillant, plus rose qu'une aurore de mai, la figure pleine, la main tiède et moite, enfin plus belle que jamais et dans un état parfait de santé. (Gautier 548)

The perceptual strength of this passage using words from the Desrocher bank is high, with an average of 5.41/7.00. On the Lancaster Norms however, the visual perceptual strength of this segment is not higher than the others. Notably, point 19, which describes Clarimonde's room and contains several words which are easy to visualise e.g. 'rose' (4.35), 'vase' (4.48), chair (4.17), woman (4.72), and yellow (4.59). I would argue that the descriptive emotion-evoking writing coupled with the deceleration, neither of which can be mapped on the norms, should nonetheless heighten vividness here. As mentioned for *La Vision de Charles XI* (141), the imagery of blood is likely to be vivid with both the bright colour and the associations with fear and disgust.

The change described in Clarimonde's eyes, as well as the numerous animal metaphors combined with repetition of the noun *agilité*, cause the reader to drastically alter the image they were likely to have had of her so far in the text. It also strongly contradicts many of her initial descriptions such as 'ange' (527) and 'royale' (528). The contrasting images of a beautiful, usually composed woman and her animalistic nature combined with the disgust associated with drinking blood might also contribute to increasing the vividness of the reader's visual image here with the context playing a role in the descriptive emotion-evoking writing. In relation to visual perceptual strength, the metaphors contribute to heightening how easily Clarimonde's otherworldly actions are visualised, with *singe* and *chat* both having very high perceptual strength scores of 6.91/7.00 in Desrocher's bank and

4.71 and 3.89 respectively in the Lancaster Norms. The notable deceleration of Clarimonde drinking blood likely further heightens the reader's vivid visualisation.

Deceleration

It is worth noting that in *La Morte Amoureuse*, there are a number of scenes with textual images encouraging kinaesthetic imagery without deceleration, such as Romuald looking out of the window at people in the park, travelling with and touching Clarimonde, and walking with Serapion. The passage being discussed is also particularly striking to the reader because of its placement in the narrative. The paragraphs preceding this describe Romuald living with Clarimonde in Venice over an inderminate period of time. As seen in 2(s), these segments have low perceptual strength as they mainly describe Romuald's more abstract thoughts about being with Clarimonde. This is then strongly contrasted with the focus on one brief moment when Clarimonde drinks Romuald's blood. The slowed-down nature of the moment combined with the horrific nature of the action encourages responses of fear and disgust, heightening vividness.

This passage is vividly visualised in relation to a deceleration of time for more than one reason. The description privileges verbs over nouns (e.g. *sauta*, *sucer*, *avalait*, *clignait les yeux*, *s'interrompait*, *baiser*, *presser*, and *se releva*), which makes it a highly action-oriented descriptive passage rather than an object-oriented one. In spite of the numerous action words in this segment, there is no notable change in the Lancaster Norms graph, largely because of the number of non-action words present in the same segment (including words like 'she' which rate highly on the visual modality but low on the others). The deceleration of the action in the text and its elongation in the reader's mental imagery is nonetheless furthered by the chosen verbs and adverbs, 'Elle *avalait* le sang par *petites gorgées*, *lentement* et *précieusement*'. These verbs and adverbs compel the reader to visualise the act of drinking blood with more detail and for longer as they read the movement-focused description of the same. The phrase 'petites gorgées' also highlights the pleasure Clarimonde takes in carrying out the action

slowly, contributing to the disgust using emotion-evoking writing. It is likely that non-visual modalities contribute here as well, the gustatory modality spikes (0.61) compared to the average (0.38).

Drop

Though there is no notable change in visual perceptual strength between the ambiguously supernatural segment discussed and the segment which follows, the drop following the bloodsucking description in *La Morte Amoureuse* is likely to occur similarly to the first ambiguously supernatural incident (157), as it fixates on the thoughts of the narrator and Sérapion following the descriptive emotion-evoking content of the previous segment:

> Cette scène me préoccupa longtemps et m'inspira d'étranges doutes à l'endroit de Clarimonde, et le soir même, lorsque le sommeil m'eut ramené à mon presbytère, je vis l'abbé Sérapion plus grave et plus soucieux que jamais. Il me regarda attentivement et me dit : " Non content de perdre votre âme, vous voulez aussi perdre votre corps. Infortuné jeune homme, dans quel piège êtes-vous tombé !" Le ton dont il me dit ce peu de mots me frappa vivement ; mais, malgré sa vivacité, cette impression fut bientôt dissipée, et mille autres soins l'effacèrent de mon esprit. (549)

Similar to *Inès de Las Sierras*, therefore, this passage focuses on literal expressions of emotion-evoking writing. It offers a strong contrast with the decelerated kinaesthetic imagery and descriptive emotion-evoking writing in the segment containing the ambiguously supernatural incident.

In *La Morte Amoureuse*, therefore, there are three points at which ambiguously supernatural incidents are discussed. The first is when Clarimonde comes back to life from the dead: here, the reader's vividness of visualisation may be heightened by descriptive emotion-evoking writing, and kinaesthetic imagery. The subsequent drop in vividness could then occur with the focus shifting to Romuald's literal expressions of emotion-evoking writing in the next segment. The second point containing an ambiguously supernatural incident is when Clarimonde is revealed to be a vampire. The

vividness of visualisation is heightened at this point with the passage's descriptive emotion-evoking writing, high perceptual strength, and deceleration of kinaesthetic imagery. The drop following the ambiguously supernatural incident should occur through the shift from descriptive emotionally evocative writing to literal expressions of emotionally evocative writing. The third segment containing an ambiguously supernatural incident in *La Morte Amoureuse* will be discussed in the next chapter, 'Auditory and Haptic Imagery in the *Fantastique*' as it contains a notable haptic component (214).

Conclusion

The purpose of this chapter was to establish some causes of heightened vividness when reading which are particularly relevant to *fantastique* writing, and then to illustrate how those principles could be applied to some of the texts being analysed in this thesis. The chapter unpacked four key factors thought to contribute to vivid visualisation: perceptual strength, emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery and considered how the four factors could heighten the reader's vividness of visualisation when reading the ambiguously supernatural incident and lower it after in part with their absence.

I used the Lancaster Norms Perceptual strength banks to illustrate how perceptual strength in visual and kinaesthetic modalities and therefore their respective imageries might fluctuate across the text. However, the inability of perceptual strength banks to consider the impact of words in a sentence caused some disparity between areas of likely heightened imagery. The three factors I considered in this chapter besides perceptual strength relied heavily on sentence structure and in the case of the emotion-evoking writing, context. These three elements were therefore difficult to illustrate using the Lancaster Norms graphs. Nonetheless, I would argue that the graphs indicate the *minimum* mental imagery vividness rating the reader is likely to have at every point, which is then compounded by other factors such as emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery.

The four factors argued to contribute to heightened vividness of visualisation were discussed using the ambiguously supernatural incident in four texts from the corpus. High visual perceptual strength was seen as a contributing factor in *La Vision de Charles XI*, *Inès de Las Sierras*, *La Cafetière*, and one of the ambiguously supernatural moments in *La Morte Amoureuse.* Descriptive emotionally evocative writing was argued to contribute towards heightened vividness in *La Vision de Charles*, *Inès de Las Sierras*, and both ambiguously supernatural moments in *La Morte Amoureuse*. Kinaesthetic imagery is likely to heighten vividness of visualization for *Inès de Las Sierras* and *La Morte Amoureuse*. Finally, in *La Morte Amoureuse*, decelerated kinaesthetic imagery of Clarimonde drinking Romuald's blood is likely to further heighten vividness.

This chapter has focused particularly on the factors which could heighten (as opposed to lessen) a reader's visualisation when reading, due to the more substantial amount of existing research on the same. There are however a few possible hypotheses for drops in vivid visualisation when reading. The first would be when two textual images are presented in rapid conjunction with one another, without there being any instructions for the reader to visualise how the transformation happens. An example would be in Nodier's *Une Heure ou La Vision*, when Octavie goes from lying on top of the man to becoming 'un sillon pâle' (Nodier 307) abruptly, in a few sentences, or when Angéla in *La Cafetière* abruptly disappears. Egregious gaps in textual imagery, described by H.P Abbot as 'the gaps that we cannot fill but that, at the same time, require filling in order to complete the narrative' (112), could thus potentially contribute to a drop in vividness.

There are two final key questions to consider in relation to these four factors. The first is what occurs when two factors causing heightened visualisation overlap. For example, the bloodsucking scene in *La Morte Amoureuse* is vivid because of both the heightened emotional response of fear and disgust that it causes in the reader and the deceleration of the action. It could be argued that the combination of two factors heightens the vividness more than one factor alone. The other, more complex question is whether there is a value system in these four factors: for example, is the vividness of

a reader's visualisation increased if there is little descriptive emotion-evoking writing but a substantial amount of kinaesthetic imagery? I would argue that the vividness of visualisation is the most dependent on emotion-evoking writing, followed by decelerated kinaesthetic imagery, kinaesthetic imagery, and finally visual perceptual strength. However, such ideas can only be supported with further experimentation, as can the speculation about where vividness of visualisation might drop in these *fantastique* stories.

This chapter has discussed four factors likely to heighten vivid visualisation. All four relate directly to text descriptions encouraging visualisation. However, text description regarding the other senses is likely to further contribute towards increasing a reader's vivid visualisation. The corpus (excluding the two Maupassant texts) will now be discussed in the next chapter in relation to auditory and haptic imagery.

Chapter 2 Appendix

X-axis labels for *La Vision de Charles XI* graph

Number on Graph	Event in story paragraphs
1	Prologue: how well-documented this story is
2	Introduction to Charles
3	Charles sitting with his subjects, silent.
4	Refusing to praise the deceased queen, walking to window
5	Sees bright lights in the throne room, insists on investigating himself
6	Key acquired, gallery corridors in black
7	Other staff trying to prevent Charles from going in
8	Shaking concierge, worried about supernatural, king opens door himself and enters
9	Lit-up great hall, "immense" assembly, blurred
10	The three distinct figures on the throne
11	Prisoner enters, bleeding corpse of king, prisoner executed, head rolls to Charles's feet
12	Spirits make their declaration
13	The entire assembly slowly disappears
14	Charles returns to study and writes down the incident, third-person narrator explains how this links to the future

X-Axis Labels for *Inès de Las Sierras* graph

Number on Graph	Event in story paragraphs
1	Frame narrative, context
2	Sergy's Introduction
3	Boutraix's Introduction
4	Preparing to travel
5	Description of travel, Sergy being superstitious
6	Arrival in Mattaro, no accomodation anywhere except Ghismondo
7	Failed request to get accommodation at inn, get food because of Boutraix
8	Convincing a very reluctant Estevan to go to Ghismondo
9	Estevan begins to explain the fear surrounding Ghismondo and talks of Ines and Ghismondo's marriage
10	Estevan describes Ines's death
11	Estevan describes the return of Ines's ghost and the death of Ghisimondo and his companions
12	Estevan tries to convince men to not go to the castle, Boutraix jokes, doesn't believe story
13	Estevan talks about his father being in the castle, arrival at Ghismondo
14	Description of entrance and courtyard, thunder, and lightening
15	Setting up in Ghismondo, description of unkempt indoors, corridor, etc
16	Looking at portraits including one of a beautiful woman
17	Portrait of beautiful woman revealed to be Ines
18	The dining room; settling in there
19	Boutraix making fun of the circumstances/all dressing up; Bascara refusing to join in
20	Everyone seated at the dinner table; Sergy and Boutraix have a philosophical debate
21	Rejoicing Inès not showing up at midnight; a voice cries out
22	Young woman arrives, seats herself at the table and eats
23	Inès's appearance description
24	Ines talks, confirms that she came because she is Inès and heard them calling
25	Narrator questions whether she is truly Inès, she confirms it again
26	Inès shows proofs linking her to Inès de las Sierras, her wound and a necklace
27	Inès toasting everyone, Boutraix stunned, Sergy falling in love with her
28	Inès sings, everyone is moved
29	Inès dances
30	Inès asks Sergy to find her room later, disappears
31	Others command Sergy not to go to Inès, try to find an explanation
32	Narrator believes it was a prank by Bascara, accuses him
33	Bascara illustrates why it was not him

34	All agree they saw something strange and inexplicable, they sleep and leave the next morning
35	Anastasia expects there to have been more to the story, narrator tells them of Sergy's death and the war ending
36	All question the "ghost" story, narrator confirms that it is not truly a story of revenants

X-axis labels for *La Cafetière* graph

Number on Graph	Event in story paragraphs
1	Arriving at location/room
2	Paintings and flames,portraits begin coming to life
3	Objects begin moving
4	Man unlocks portraits, eating, looking at clock
5	Dancing, quick and intense
6	Quick dancing, noticing woman
7	Angéla's appearance, talking
8	Dancing with Angéla, her getting tired
9	Sitting with Angéla, dawn; Angéla faints/becomes coffee pot, T faints
10	Waking up in bed in costume
11	Drawing the cafetière, learning Angéla is dead

X-axis labels for *La*

Morte Amoureuse graph

Number on Graph	Event in story paragraphs
2	Desire to become priest
3	Seeing Clarimonde- shock
4	Clarimonde's beauty
5	Not wanting to become a priest, but going through the ceremony
6	Clarimonde noverbally trying to convince Romuald not to become priest during ceremony
7	Ceremony ends, unhappy Clarimonde, meets Romuald outside, touches hand
8	Judged by bishop, gets pocket book from Clarimonde
9	Romuald unhappy with being a priest
10	Looking at park from window, angry
11	Serapion informs Romuald of his new position
12	Romuald upset about leaving the next day
13	Travel begins next morning
14	Seeing the palace/Clarimonde from a distance
15	Travel continues, arrives at new town
16	Serapion returns, Romuald thinks he sees Clarimonde once, an unhappy year goes by for him
17	Call late at night for someone passing away
18	Intense travel to location on horseback
19	Clarimonde's home, she has passed away
20	Romuald seeing Clarimonde's room
21	Desire to see Clarimonde's corpse and make sure it is her
22	Description of Clarimonde's beautiful corpse
23	Kisses corpse, comes back to life
24	Faints, comes back to consciousness after three days, confused
25	Serapion comes to visit, seems to know
26	Tells Romuald Clarimonde has died, warns him
27	Clarimonde visits Romuald in his room at night
28	Romuald forgets Serapion's advice, affectionate with Clarimonde
29	Asks Romuald to leave with her
30	Romuald agrees, Clarimonde says she will return the next day, returns
31	Romuald changes dress into more extravant clothes
32	Leaves the house, travels in a carriage with Clarimonde, living life in two halves
33	Believed he lived in Venice, description of extravagance
34	Happy and passionately in love with Clarimonde, begins falling ill
35	Romuald cuts his finger; Clarimonde drinks his blood
36	Romuald disturbed, admonished by Serapion, Clarimonde pours powder in his wine
37	Clarimonde drinks his blood again while thinking he's unconscious
38	Romuald torn about what to do, tired of double identity
39	Serapion offers to help, they go to the cemetery
40	Finds Clarimonde's grave, turns body into ash with holy water
41	Romuald devastated, Clarimonde visits him once more and then disappears for-ever

Chapter 3

Auditory and Haptic Imagery in the *Fantastique*

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Introduction

The primary focus of this thesis is how a reader's vividness of visualisation fluctuates across a *fantastique* text. As explored in the previous chapter, emotion-evoking writing, perceptual strength, the use of kinaesthetic imagery, and deceleration should heighten vividness particularly during the key segments containing the ambiguously supernatural incident. However, the ambiguous nature of the supernatural incident subsequently causes a drop in vividness because of the reader's likely inability to explain the events in the narrative. The primary hypothesis being presented is thus that readers are likely to have an increased *range* of vivid visualisation when reading a *fantastique* text caused by the ambiguous nature of the supernatural incident.

Some of the reasons for choosing to explore visualisation or visual imagery more extensively than the reader's other senses were briefly mentioned in the introduction (35). It is nonetheless likely that text descriptions encouranging the use of the reader's other senses also contributes towards vivid visualisation. The purpose of this chapter is to explore the potential role played by auditory and haptic imagery for a reader when reading the *fantastique*. I present the argument that a reader's vividness of visualisation is heightened when there is substantial auditory or haptic imagery used in the key ambiguously supernatural segment.

The multimodal nature of mental imagery

It is worth taking some time here to expand on the relationship between the vividness of visualisation and the vividness of auditory and haptic imagery. The three modalities are likely to work together to give rise to vivid mental imagery. This is in keeping with Gabrielle G. Starr's argument when she draws the multidimensional nature of mental imagery to light in her article, 'Theorizing Imagery, Aesthetics, and Doubly Imagined States'.

> Imagery is in fact better understood as multisensory and multimodal. Rarely will we encounter descriptions that speak only to a single sense. So, for example, imagining a scene may draw not just on sight, but on sound, too, as in a fully imagined experience of Pandaemonium. Even representations that seem primarily to call on a single sense, though, may engage broader sensory awareness or integration. (248)

As suggested by Starr here, the reader's visual imagery does not work alone in any work of fiction. The multimodal nature of mental imagery is evident even in vividness rating tasks focused on visualisation. For example, Marks' VVIQ (1973) contains not just visual but also auditory or haptic cues. Some prompts include, 'A storm blows up, with flashes of lightening' and 'The counter assistant serves you. Money changes hands' (24). It is possible that for both these prompts, the reader will entertain some sort of auditory imagery given the connotations of thunder for the former and brief conversation in the latter. Additionally, the second prompt might also evoke haptic imagery with the phrase 'money changes hands'. There are likely to numerous similar overlaps between visual, auditory, haptic, and other sensory imageries when a reader engages with fiction.

Further support for the multimodal nature of visualisation can also be found when relating vividness of visualisation to perceptual strength. The Lancaster Norms introduced in the previous chapter, for example, suggest that reading a work does not need to be associated with only one sense. Words rated highly on the haptic modality are also often rated highly on the visual modality, for example, suggesting that standalone words often evoke visualisation based on perceptual strength from more than one modality.

Multimodal Imagery and Perceptual Strength

The Lancaster Norms cover eleven different modalities. Six were related to perceptual strength, namely visual, auditory, haptic, gustatory, olfactory, and interoceptive. Five were related to action and called 'action effectors' (Lynott 3), namely hand-arm, foot-leg, head, mouth, and torso. All these modalities can be argued to be used in text descriptions in fiction, including the *fantastique*. The visual (discussed in Chapter 2), auditory, and haptic (to be discussed in this chapter), were selected as the three main modalities to be explored in this thesis because the three senses are the most strongly related to the ambiguously supernatural incident. In some cases, the reader is only offered auditory cues for the *fantastique* source (*La Vénus d'Ille*, Mérimée 1836). In others, they are introduced to haptic contact with the source before it is seen or heard in any form (*Le Horla*, Maupassant 1887). In texts with longer or multiple ambiguously supernatural incidents, the reader is often given multiple descriptions relating mainly to these three senses for the *fantastique* source (*La Morte Amoureuse*, Gautier 1836). However, the other Lancaster Norm modalities might relate to the *fantastique* to a lesser degree and will therefore be acknowledged here. The other perceptual modalities include the olfactory, gustatory, and the interoceptive. Lynott et al (2020) refer to 'interoceptive' as 'sensations inside the body' (6). To illustrate, 'headache', 'exhausted', 'painful', 'stomach flu', and 'stomach ache' are the five most highly-rated words on the interoceptive modality (all rating 4.85 and higher out of a possible maximum of 5). Such words are also important for the frequent descriptions of feelings in fiction, including the fantastique ('fear' scores 4.75 on the interoceptive scale).

The bodily movement encapsulated in the Lancaster Norms action effectors 'foot-leg', 'hand-arm', 'head', 'mouth', and 'torso' might be useful to consider for the argument presented in Chapter 2, that kinaesthetic imagery increases vivid visualisation. While this thesis so far has also established that the norms do not present a holistic idea of how words with high perceptual strength on different modalities are visualised when read in a sentence (104) they are a useful tool to assess how easy it is

for the reader to evoke imagery for each sense per segment, thus likely creating vivid multimodal imagery.

It is important to consider how these action effectors as well as the other modalities correlate to one another and particularly to the visual modality to assess the extent to which the visual modality reflects multimodal imagery. Lynott et al (2020) provide a useful pictorial depiction of the correlations in their paper:

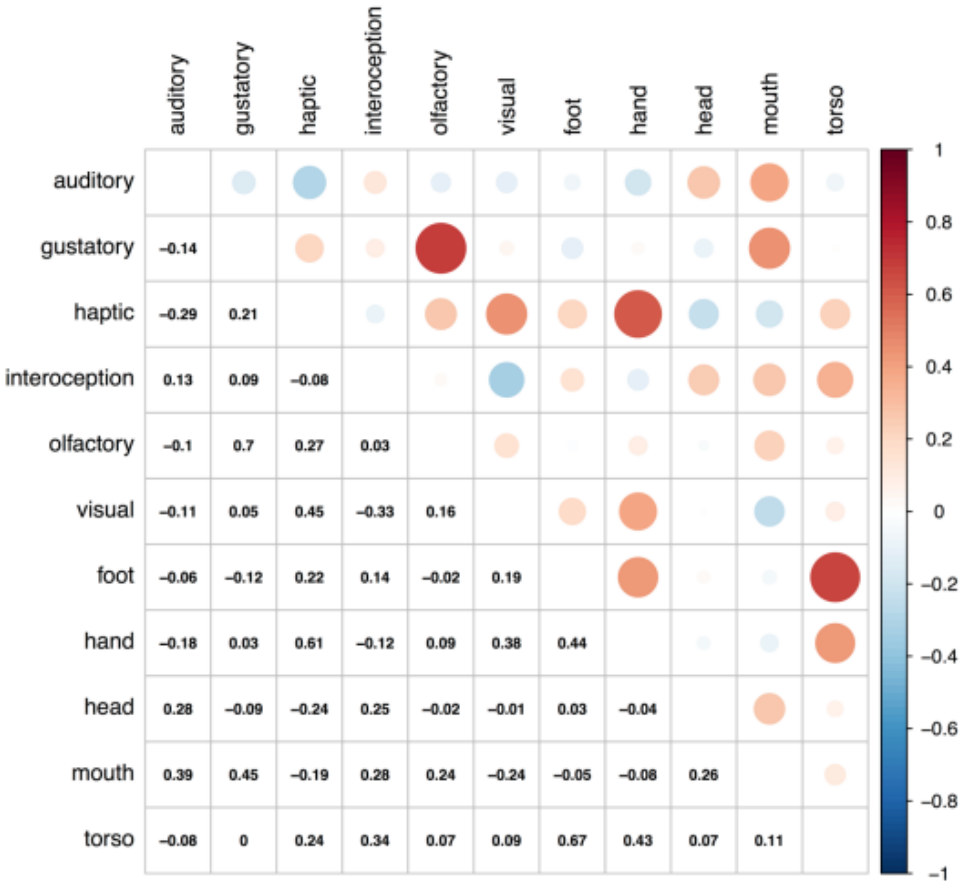


Figure 5: Correlation matrix plot between 11 dimensions for mean ratings of sensorimotor strength (N = 39,707). Larger circles indicate stronger correlations, with red shades being positive and blue shades being negative.

Figure 3(a), Lynott et al (2020), 31

Lynott et al's figure reveals some key correlations across the Lancaster Norms word bank. A strong positive correlation, for example, is seen between the gustatory and the olfactory. This means that a sentence referring to food, for example, should easily evoke both gustatory and olfactory imagery. The thesis focuses on visualisation: it is thus worth especially looking at how the five other perceptual strength modalities (auditory, haptic, olfactory, gustatory, interoceptive) relate to the visual.

Figure 3(a) indicates a weak *negative* correlation between words rating highly on the auditory modality and those rating highly on the visual modality. This suggests that a sentence such as 'She screams loudly' would *not* be easily visualisable for a reader. A moderately positive correlation is seen between the visual and haptic modalities. Thus, a sentence such as 'She touches my hand' should easily evoke both visual and haptic imagery for a reader. Both gustatory and olfactory have little to no correlation with the visual. This means that a sentence such as, "She tastes the cake" or "She smells the perfume" should not necessarily easily evoke visual imagery. Finally, the visual and the interoceptive modalities have a negative correlation. Thus, a sentence such as 'Her stomach hurts" should not evoke visual imagery very easily. The extent to which these correlations are likely to apply when reading fiction will be further unpacked across this chapter, as well as later in Chapter 5 when discussing *Lui ?* and *Apparition*.

Multimodal Imagery and Emotion-Evoking Writing

Text descriptions for the nonvisual senses are likely to contribute towards emotion-evoking writing. The previous chapter discussed a study conducted by Sadoski in 1988, in which participants read Saki's *The Open Window* (1911) and rated it for emotional response and imagery. There was a positive correlation found between the two factors. The following graph, previously presented on page 115, shows the results.

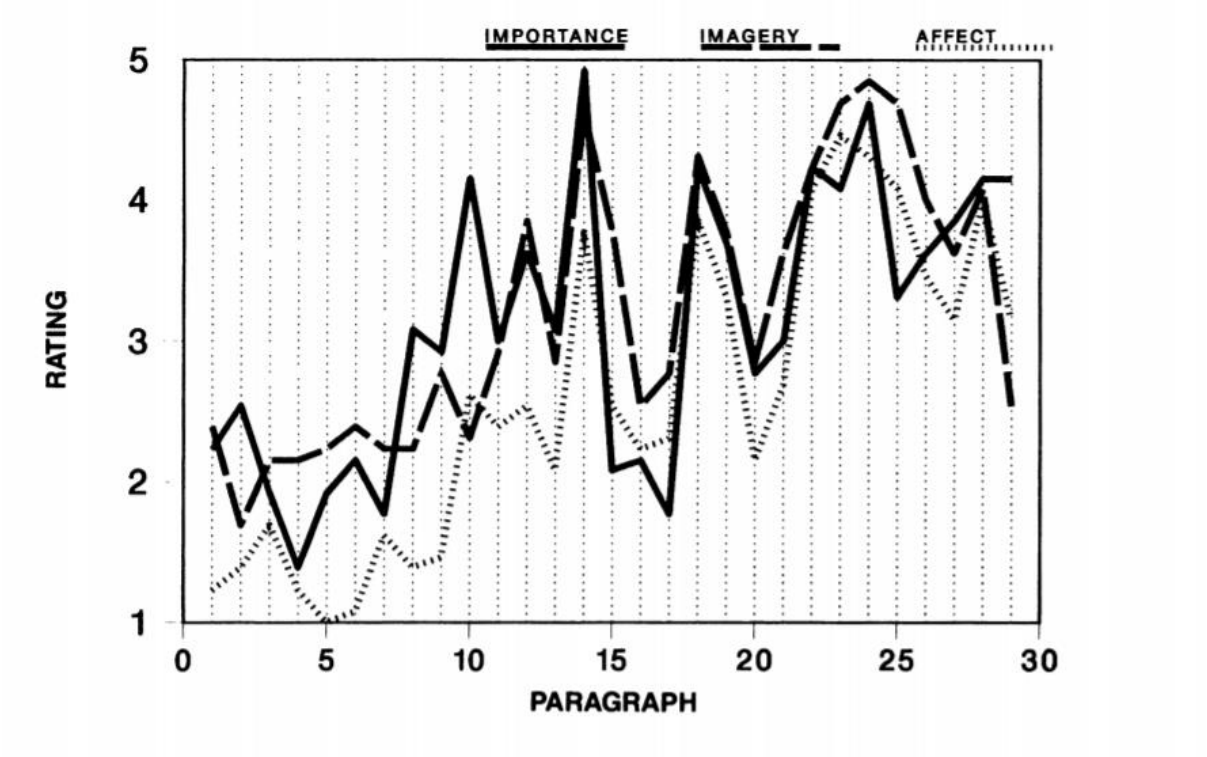


Figure 3(b): Emotional response, vividness, and structural importance ratings for *The Open Window* (Sadoski 329)

As seen on the above graph, both vividness and emotional response spike around Points 14 and 24. The text of 24, for example, which is a key moment in the story, is as follows.

> "Here they are at last!" she cried. "Just in time for tea, and don't they look as if they were muddy up to the eyes!"
>
> Framton shivered slightly and turned towards the niece with a look intended to convey sympathetic comprehension. The child was staring out through the open window with a dazed horror in her eyes. In a chill shock of nameless fear Framton swung round in his seat and looked in the same direction.
>
> In the deepening twilight three figures were walking across the lawn towards the window, they all carried guns under their arms, and one of them was additionally burdened with a white coat hung over his shoulders. A tired brown spaniel kept close at their heels. Noiselessly they

> neared the house, and then a hoarse young voice chanted out of the dusk: "I said, Bertie, why do you bound?" (Saki)

It is evident that this passage does not solely contain visual text imagery. There are two instances of direct speech at the beginning and the end of this extract which can be related to auditory imagery. There are also haptic text cues such as Frampton 'shivering', the 'chill shock', and the description, 'muddy'. Though the scene is primarily visual, it is thus added to by the auditory and haptic textual cues and the subsequent auditory and haptic imagery it evokes. All three modalities come together here to contribute towards the emotion-evoking writing at this key moment in the text, and the reader's subsequent vivid visualisation.

Multimodal Imagery and Kinaesthetic or Decelerated Kinaesthetic Imagery

I would argue that non-visual imagery and kinaesthetic imagery similarly feed into a reader's visualisation to heighten vividness. Figure 3(a) contains correlations of the different modalities across the Lancaster Norms. There are very few notable correlations between the action effector modalities (argued to possibly demonstrate which parts of a text make it easy for the reader to visualise movement in Chapter 2). A positive correlation is seen between the auditory and mouth modality, likely referring to words such as 'speak', 'talk', etc which relate to the auditory and use the mouth. A similarly positive correlation is seen between the haptic and hand modalities. This suggests that a sentence such as 'She grabbed the book' should evoke both haptic and kinaesthetic imagery.

It is worth mentioning here that the general lack of positive correlations between the nonvisual senses and action effectors in the norms may not always be reflected in a reader's visualisation when reading fiction. Edgar Allan Poe's *The Tell-Tale Heart* (1843), used in Chapter 2 to demonstrate gaps between perceptual strength ratings and the reader's likely visualisation (105, 125) contains the following sentence, 'The old man gave a loud cry of fear as I fell upon him and held the bedcovers tightly

over his head' (Poe 66). This is an example of a sentence containing both auditory and kinaesthetic imagery. The average ratings per modality for this sentence is as follows:

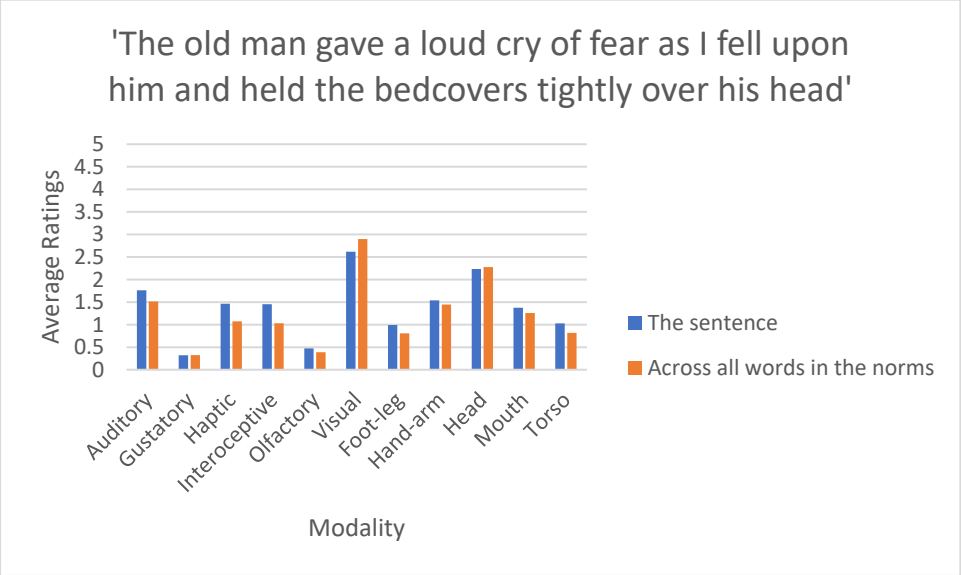


Figure 3(c)

Figure 3(c) illustrates that, firstly, the Lancaster Norms do often demonstrate what kind of mental imagery the reader is likely to evoke in a passage. The auditory rates at 1.76, higher than the average rating across the norms (1.51), reflecting the valuable role it plays in this sentence. The hand-arm modality is very slightly above the average rating (1.45). These two modalities are likely the two most valuable nonvisual contributors towards the reader's visualisation of this sentence (the ambiguous nature of the highly rated 'head' modality has been discussed in Chapter 2 (142)). However, as per Figure 3(a), the auditory and hand-arm modality have a very low negative correlation. This suggests that words that rate highly on one of these modalities do not rate highly on the other. While it is indeed rare that a highly-rated auditory word such as 'scream' (4.2) would elicit any kinaesthetic imagery relating to the hand (0.05), or that a highly-rated hand-arm word like 'pull' (4) would elicit any auditory imagery (1), when read in a sentence such as the example above both the auditory and kinaesthetic imagery likely combine to elicit a vivid multimodal image. Thus, while the Lancaster Norms may sometimes illustrate which nonvisual modalities are easiest to evoke at certain points in a text, it cannot account for the interaction between the nonvisual and the kinaesthetic when cues for both

are read in a sentence. An additional feature in Figure 3(c), also seen across the norms, is the significantly higher rating of the visual modality compared to the other senses.

The disparity of research between visual and non-visual imagery

Though visualisation is likely multimodal, there is a significantly larger body of research on how fiction is processed visually by readers rather than by the other senses. In his article, 'Why is there so much more research on vision than on any other modality?' (2019), Fabian Hutmacher uses the following graph of research to illustrate the disparity between research on visualisation as compared to the other senses between 2008 and 2019.

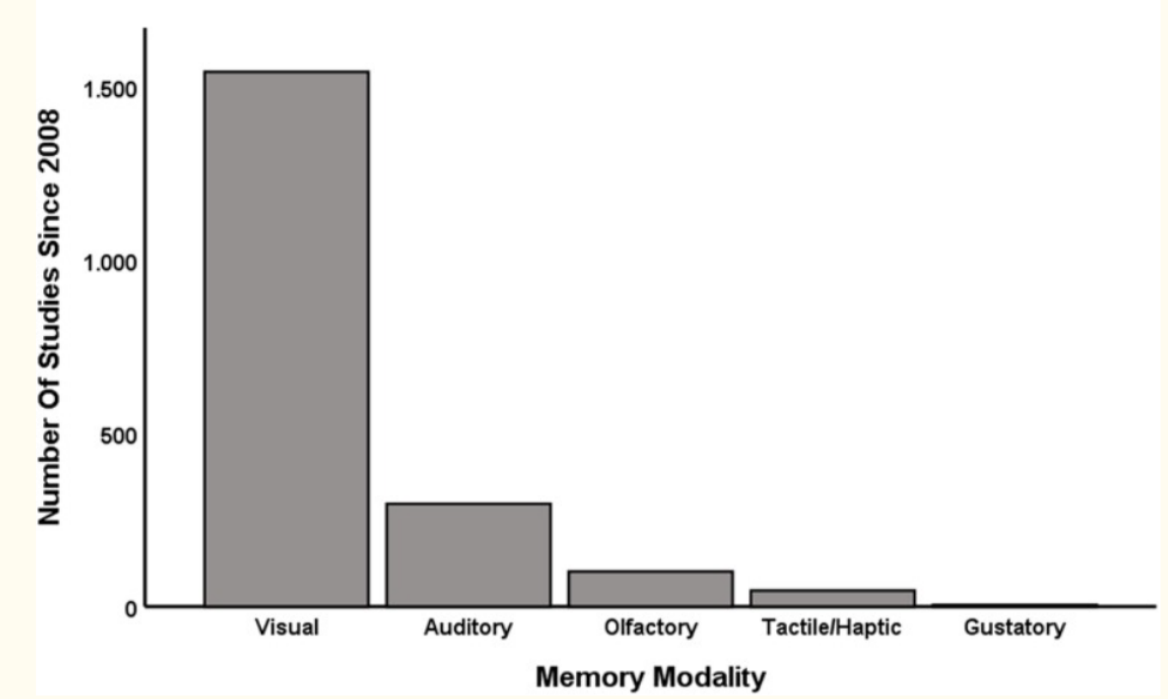


Figure 3(d)

Hutmacher goes on to argue that a strong reason for this disparity is that the technology being developed to investigate mental processes often works best with vision rather than the other senses. His arguments are focused on the research on the use of vision versus the other senses in daily life, but the trend of visualisation being valued over the other senses is likely to extend to the nature of

mental imagery when reading. While mental imagery is likely to be multimodal, it is true that most mental imagery when reading might be focused on the visual.

How important are the other senses to the *fantastique*?

The value of visualisation specifically to the *fantastique* was discussed in the introduction (35); the ambiguously supernatural incident is often based on the narrator primarily seeing the *fantastique* creature(s) for a brief moment (e.g. *Lui ?*, *Une Heure*, *La Vision de Charles*). However, as illustrated by the multimodal nature of mental imagery using Saki's *The Open Window* (176) and Poe's *The Tell-Tale Heart* (178), the other senses are likely to play a perhaps less frequent but key role in the *fantastique* incident as well. By 'other senses', I am referring to both those used by the characters, e.g. when they hear rather than see a *fantastique* trigger, and those possibly used by the reader to mentally process the incident according to the non-visual text cues offered to them. The five senses are the visual, auditory, haptic, olfactory, and gustatory. While the use of all five senses is described across *fantastique* texts, the visual, auditory, and haptic feature the most strongly in relation to creating the ambiguity around the possibly supernatural incident. Though drinking alcohol and consuming drugs sometimes lead to the ambiguously supernatural incident, especially in Gautier's works, e.g. *Le Club des Haschichins* (1846), they do not usually play a key role in creating mental imagery for the incident itself. The main part of my analysis will therefore be focused the auditory and the haptic. However, the focus of this chapter will primarily be the auditory, largely because of the lack of secondary research on haptic imagery.

Auditory and haptic imagery will be explored across the corpus of *fantastique* texts. As was the case with Chapter 2, the modalities are not evenly spread out across the texts; they will be divided based on which non-visual sense is the most present in the text, and therefore the most important to the ambiguously supernatural incident.

Using the Lancaster Norms for non-visual modalities

As demonstrated with the visual modality in the previous chapter, I have mapped out the patterns of the auditory and haptic modalities for each text in the corpus. The texts were divided into segments of 100-300 words. The words of each segment were then run through the norms, and the average of each modality was calculated.[21] These graphs will be considered as an indication of how perceptually strong auditory and haptic text cues might be at different points in the text.

The thesis argues that auditory and haptic vividness increases the vividness of the reader's visualisation by feeding into an overall mental image of the text. This is not reflected in the norms; the auditory and visual modalities have a negative correlation. Words rated highly on the auditory modality were therefore rated low for the visual modality, and vice versa. Two tables follow: the first lists words of some common human-made noises (e.g. crying, speaking, whispering), and the second contains words which indicate some common nonhuman sounds (e.g. buzz, ring, click). The auditory and visual ratings from the Lancaster Norms are provided for both.

[21] The process was illustrated with screenshots on page 108.

Word	Auditory.mean	Visual.mean
CRY	3.812	4.062
LAUGH	4.294	3
MUMBLE	3.895	0.895
MUTTER	4.467	0.933
SAY	3.9	1.15
SCREAM	4.2	1.8
SHOUT	4.111	1.389
SHRIEK	4.778	1.333
SCREECH	4.842	0.737
SPEAK	4.556	1.778
TALK	4.5	2
TELL	2.842	1.211
WHISPER	4.562	1.062
YELL	4.263	1.632
HEAR	4.611	0.056
LISTEN	4.55	1.2

Figure 3(e)

Word	Auditory.mean	Visual.mean
BOOM	4.824	1.471
BUZZ	3.588	1
CLANG	4.643	0.714
CLICK	4.118	0.529
DING	4.647	0.824
PING	3.25	1
RING	1.5	4.111

Figure 3(f)

The negative correlation between the auditory and visual modalities on the Lancaster Norms is evident in Tables 3(c) and 3(d). While this suggests that in most cases, words easily evoking auditory imagery do not evoke visual imagery, it is worth re-emphasising here, as discussed in Chapter 2, that perceptual strength does not equate vividness of visualisation when reading fiction (104). The vividness of visualisation experienced by a reader when engaging with a sentence differs from that when reading standalone words. In the case of auditory imagery, for example, reading a perceptually strong auditory verb when a character speaks is likely to contain visual imagery of the character. Similar to the argument made for analysing kinaesthetic imagery using the Lancaster Norms (125) therefore, the graphs created are being used to offer an indication of how many perceptually strong auditory and haptic text cues can be found per segment in these texts. Both auditory and haptic imagery should contribute towards heightening the reader's vividness of visualisation if used during the ambiguously supernatural incident.

The Auditory

In a study investigating individual differences in auditory imagery using fMRIs, Lima et al (2015) defined auditory imagery as follows:

> Auditory imagery is a complex process by which an individual generates and processes mental images in the absence of sound perception – "hearing with the mind's ear". Auditory mental images can be so vivid that they resemble the real experience of hearing, and they can be as accurate as representations arising directly from sensory input. (4638)

In the context of reading, similar to the definitions of visualisation and visual imagery (13), auditory imagery describes a reader's ability to imagine a sound from a text cue, which they are not perceiving in real life. As several researchers have pointed out (Reisberg et al 1991, Gunraj et al 2012, Hutchmacher 2019), there is a significant gap between the research on the visual and that of the auditory, despite its frequent presence in works of fiction. Additionally, research on auditory imagery is often concentrated on reading music, e.g. Halpern's 'Mental scanning in auditory imagery for songs' (1988), Brodsky et al's 'Auditory imagery from musical notation in expert musicians' (2003), Pfordresher and Halpern's 'Auditory Imagery and the Poor-Pitch Singer' (2013).

There are several auditory text cues in most works of fiction. By auditory text cues, I am referring to both the dialogues spoken by different characters and the sounds within a text. Such auditory text cues should contribute towards influencing the reader's vividness of visualisation, as well as their interpretation of the events in a text. A study by Loftus and Palmer (1974) explored whether the language used in a question could influence the answer. In the experiment, forty-five participants were shown seven films of traffic accidents. The participants were then asked several questions about the video. The key question was about the speed of the cars as they came into contact, but Loftus and Palmer changed the verb in the different conditions. The question was 'About how fast were the cars going when they *smashed*/*collided*/*bumped*/*hit*/*contacted* each other?'. The results suggested that

the estimated speed by the participants was the lowest for 'contacted' and the highest for 'smashed'. The following graph portrays the results.

TABLE 1
SPEED ESTIMATES FOR THE VERBS USED IN EXPERIMENT I

Verb	Mean speed estimate
Smashed	40.8
Collided	39.3
Bumped	38.1
Hit	34.0
Contacted	31.8

Figure 3(g) (Loftus and Palmer 586)

While the aim of this study was to investigate the reliability of eyewitness testimonies, it is worth noting that the verbs used have a significant auditory aspect to them. The verb with the highest speed estimate, "smash", for example, seems like a much stronger auditory word than "bump". This can further be supported when these words are run through the auditory modality of the Lancaster Norms:

Word	**Auditory Lancaster Norms Rating**	**Visual Lancaster Norms Rating**
Smash	2.89	3.67
Collide	1.90	3.20
Bump	1.35	2.42
Hit	1.8	3.15
Contact	2	2.67

Figure 3(h)

The range for the auditory ratings above at 1.54 is larger than that of the visual at 1.25, suggesting that there is more to distinguish between these verbs auditorily than visually. Additionally, the results suggest 'smash', the word which had the highest speed ratings, to be the most vivid auditory word. This also links to Loftus and Palmer's second experiment; they asked participants whether they saw broken glass in the video and found that those in the "smash" condition were likely to say yes, even though there was none (587). The only anomaly in Table 2 is the rating for 'contact', which is the second-highest. However, I would argue this is caused by the homonym issue discussed in Chapter 2 for "ring" (106); the more frequent use of 'contact' today is in a social rather than physical or haptic context, e.g. 'I contacted my friend', which may elicit auditory images of two people talking. Though not intended, Loftus and Palmer's experiment thus suggests the influence auditory words can have on a reader's impression of an incident.

Auditory Vividness

An important question to consider is whether vivid auditory imagery can be considered to have the same qualities as vivid visual imagery. Hubbard and Ruppel (2021) conducted an experiment asking participants to rate their vividness on the Bucknell Auditory Imagery Scale and the Clarity of Auditory Imagery Scale (Halpern 2015). The results indicated a positive correlation between the two of 0.55.

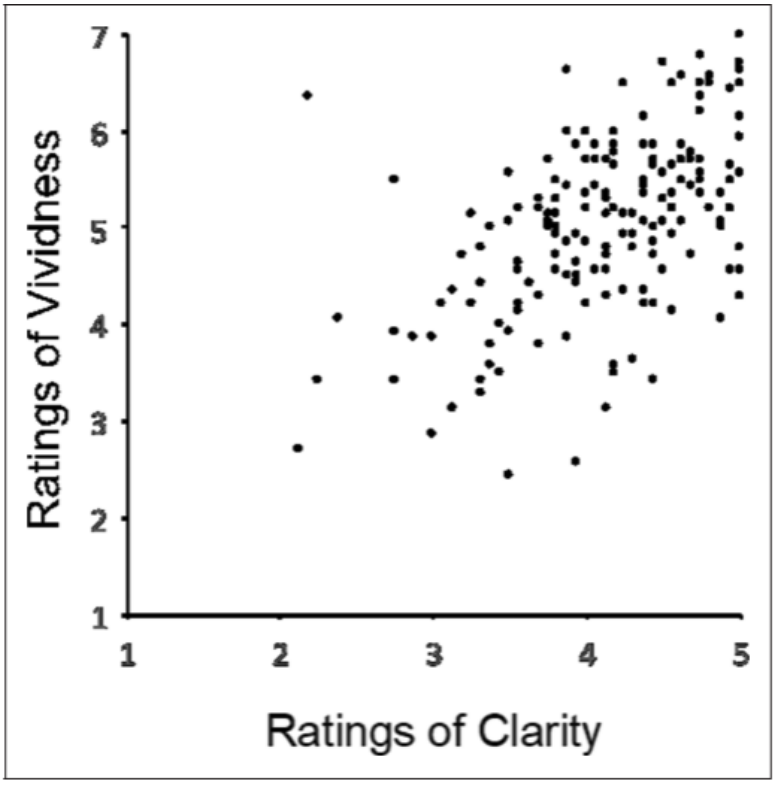


Figure 3(i) (Halpern 212)

It is suggested that there is a significant relationship between the reader's ability to have a clear auditory imagery of the sound and the vividness of the imagined sound. This is not too different from vividness of visual imagery, where similar importance is given to clarity. Marks' VVIQ scale indicates this; the highest rating has the descriptor, 'Perfectly *clear* and as vivid as normal vision' (Marks 18). Auditory and visual vividness are therefore being assessed on similar grounds for vividness in this thesis. Two of the four factors discussed in Chapter Two are being thought to be applicable to increasing auditory vividness as they are to visual vividness: perceptual strength and emotion-evoking writing. Words which are perceptually stronger for the auditory modality are easier for the reader to elicit. As mentioned earlier (181), the auditory and visual modalities are negatively correlated in the Lancaster Norms; it is thus suggested that words which easily evoke visual imagery do not easily evoke auditory imagery, and perceptually strong words for auditory imagery do not easily evoke visual imagery. It is then worth questioning how a passage high in both auditory and visual perceptual strength should affect a reader's vividness of visualisation. This chapter argues that segments high in auditory

perceptual strength should increase a reader's vividness as a reader's visualisation as reading is likely to be multimodal. Elements such as pitch and amplification could additionally affect vividness of auditory imagery; these will be discussed further in the analysis of the texts.

Dialogues and Sounds in the *fantastique*

As with most genres of fiction, the main source of auditory imagery in *fantastique* writing is primarily characters talking to one another. This can involve two ordinary characters conversing, or conversations between an ordinary character (usually the protagonist), and a *fantastique* creature. Five out of the eight texts in my chosen corpus contain conversations with the *fantastique* source; these are Nodier's *Inès de las Sierras*, Gautier's *La Cafetière* and *La Morte Amoureuse*, Mérimée's *La Vision de Charles XI*, and Maupassant's *Apparition*. Though dialogues are likely to be the primary source of auditory cues for the reader, sounds often play a valuable role. Examples range from those as minor as Clarimonde pulling Romuald's curtains aside in *La Morte Amoureuse* ('j'entendis ouvrir les rideaux de mon lit et glisser les anneaux sur les tringles avec un bruit éclatant (Gautier 543) to the *fantastique* incident in *La Vénus d'Ille*, which revolves entirely around the narrator *hearing* rather than seeing the statue move on the stairs. The discussion on the auditory in these texts will be divided into dialogue and sounds**.** I am arguing that both dialogues and sound contribute to heightening the vividness of the visualisation for the reader.

Dialogue

Existing research indicates that direct speech is likely to be visualised more vividly than indirect speech. In 2011, Yao et al conducted a study investigating whether there is any difference in how direct and indirect speech is processed when a fictional text is read silently. Participants were asked to read a short story with either direct or indirect speech while undergoing an fMRI. The results indicated that only those reading direct speech had voice-selective areas activated in their brain during

the fMRI, and that readers were 'more likely to engage in perceptual simulations' (Yao 3146) in the direct speech reading condition. Yao et al emphasise the lack of encouragement offered to the participant to auditorily image a voice, 'It seems unlikely that our participants felt encouraged to imagine specific voices during reading. Nonetheless, they still appeared to automatically activate voice-related perceptual representations, particularly in response to reading direct speech statements.' (3150) They go on to hypothesise that this is likely due to the dramatic nature of direct speech compared to indirect speech.

It is very important to establish how dialogue would be processed by the Lancaster Norms. While a word initiating a dialogue, e.g. 'said', 'told', 'screamed', etc. would be rated as a perceptually strong auditory word, the dialogue which follows would not necessarily contain high auditory imagery ratings. Nonetheless, based on Yao et al's research, readers engaging with direct speech might engage in more perceptual simulations (3146) and subsequently have more vivid visualisation. This gap between the Lancaster Norms and text content will be further considered when discussing the Lancaster Norms graphs for the the auditory imagery in each text.

Fantastique writing contains examples of both comfortable and uncomfortable dialogue between the protagonist and the speaking character featured in the ambiguously supernatural incident. With 'comfortable dialogue', I am referring to conversations in the text in which the characters do not portray any negative emotions towards the *fantastique* creature. Comfortable dialogue most commonly features in *fantastique* texts when there is a romantic connection between the protagonist and the ambiguously supernatural creature. It is most oftenly used by Théophile Gautier, including in the two works used in this corpus, *La Cafetière* and *La Morte Amoureuse*. An example from *La Cafetière* reads as follows:

> - Angéla, vous êtes lasse, lui dis-je, reposons- nous.
>
> – Je le veux bien, répondit-elle en s'essuyant le front avec son mouchoir. Mais, pendant que nous valsions, ils se sont tous assis ; il n'y a plus qu'un fauteuil, et nous sommes deux.

– Qu'est-ce que cela fait, mon bel ange ? Je vous prendrai sur mes genoux. (Gautier 8)

As evident in this example, comfortable dialogue does not contain any indication of negative emotions from the characters in the text. There are numerous similar examples of comfortable dialogue in *fantastique* texts; other works by Gautier such as *Omphale* (1834) and *Le Pied de Momie* (1840) often include similar dialogues. Beyond Gautier, Auguste Villiers de l'Isle-Adam's *Véra* (1874) and Jan Potocki's *Le Manuscrit Trouvé à Saragosse* (1805) also include examples of comfortable dialogue. In most *fantastique* works however, the protagonist is apprehensive and fears the creature, and are unable to truly understand the nature of the possibly supernatural creature as the latter dominates the conversation (*Inès de Las Sierras*, *La Vision de Charles XI*, *Apparition*). I will refer to these conversations as 'uncomfortable dialogue'.

If auditory imagery contributes towards heightening vividness of visualisation in fiction, as is being argued in this thesis, both comfortable and uncomfortable dialogue should increase vividness of visualisation. However, the focus of the thesis is how the unique ambiguously supernatural incident might affect a reader's vividness of visualisation. As comfortable dialogue rarely directly relates to the ambiguously supernatural incident, it will not be discussed further. My focus will therefore be the auditory imagery accompanying uncomfortable dialogue featured in *fantastique* texts. This type of dialogue occurs when a conversation takes place between a *fantastique* creature and a non-*fantastique* character while the latter is aware that the former is a possibly supernatural creature. Such dialogue takes place in *Inès de Las Sierras*, *La Vision de Charles XI*, and *Apparition*. As mentioned earlier, *Lui ?* and *Apparition* are analysed in the final chapter (294) with the experiment results.

Inès de Las Sierras

In my corpus, *Inès de Las Sierras* is the only story in which the *fantastique* trigger is heard even before it is visually presented to both the characters in the text and the reader. The uncomfortable dialogue, and the ambiguously supernatural incident, begins simultaneously as follows.

A Inès de Las Sierras ! cria Sergy.

A Inès de Las Sierras ! répétai-je en rapprochant mon verre à demi vide de leurs verres déjà pleins.

Me voilà ! cria une voix qui partait de la galerie des tableaux.

Heim ? dit Boutraix en se rasseyant. – La plaisanterie n'est pas mauvaise ; mais qui l'a faite ?

Je jetai les yeux derrière moi. Bascara s'était cramponné tout pâle aux barreaux de mon fauteuil.

Ce faquin de voiturier, répondis-je, que le vin de Palamos a mis en gaité.

Me voilà ! me voilà ! reprit la voix. Salut et bonne humeur aux hôtes du château de Ghismondo ! (27)

The key moment being discussed, as well as the patterns of perceptual strength are mapped on the following graph. The *fantastique* moment occurs at point 21, where Inès's presence is revealed.

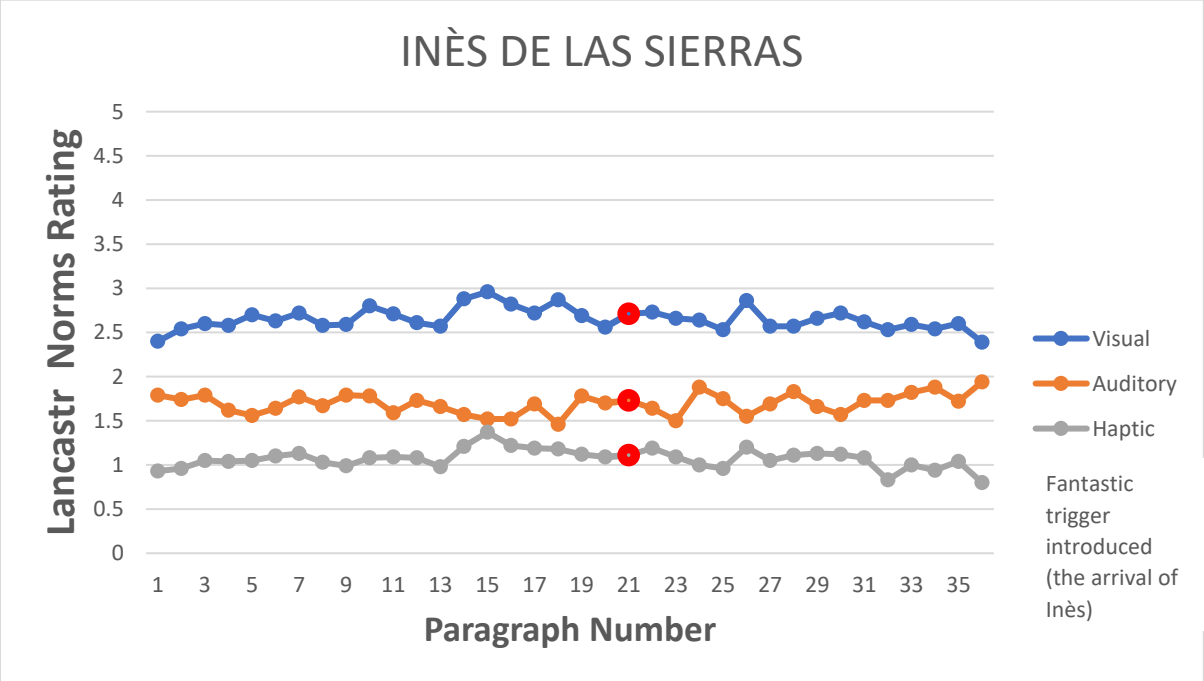


Figure 3(j)[22]

As in the Chapter 2 graphs and across the Lancaster Norms, in Figure 3(h), the visual modality is noticeably higher than the other modalities, in this case the auditory and haptic modalities. This is

[22] The key for the X-axis of each text graph can be found in the Appendix for Chapter 3.

likely as auditory words sometimes also have a perceptually high visual rating (e.g. cry) and are sometimes confused by homonyms which have a perceptually strong visual image (e.g. ring), whereas perceptually strong words for the visual modality rarely rate highly for the auditory modality. Additionally, it is likely that a larger number of words contain a visual rather than an auditory dimension for the reader to evoke a mental image. In an experiment in which participants were asked to listen to sentences about a trip to the beach with visual and auditory cues, Tracy et al (1988) found participants to score significantly more highly on the visual modality for vividness than the auditory. It is worth also briefly considering the correlation between the auditory and the visual across this text. There is a significantly negative correlation of -0.68 between the two modalities, reflecting the pattern of the Lancaster Norms word bank (181).

There is a slight increase in auditory perceptual strength at the introduction of the ambiguously supernatural incident, when Inès arrives (going from 1.70 to 1.73). However, this is not a very sharp rise, nor is it the most auditorily perceptually strong moment in the text. The moment with the highest auditory perceptual strength occurs in the very last segment with the average rating of 1.94. This is likely cause be the high amount of direct speech from different characters, and therefore uses several words initiating each dialogue which rate highly on the auditory modality, e.g. 'said', 'call', 'reply', 'explain', and 'told'.

While it is thus likely that the segment containing the ambiguously supernatural incident does not contain many words which are perceptually strong for the auditory modality, *Inès's* introduction with direct speech should contribute towards the reader's use of auditory imagery here and increase their vividness of visualisation. As mentioned earlier (188), auditory imagery likely feeds into the visualisation of any text to increase its vividness, but there are certain features of auditory imagery which could further increase vividness. Two such characteristics features in *Inès de las Sierras* are loudness and pitch.

Loudness and Vividness

A key verb to note in the segment containing the ambiguously supernatural incident is ‘cria’. Though unfortunately not present in Desrocher’s word bank, the closest translation is ‘shouted’ (Collins Dictionary). The verb implies an amplified sound. A study by Margaret Jean Intons-Peterson (1980) suggested that readers can perceive loudness when they read sound descriptions. Inton-Peterson ran a series of four experiments; in one of those, participants were asked to rate the loudness of written auditory text cues between 1 (very soft) and 7 (very loud). The following table shows the results.

Table 1
Means and Standard Errors for Ratings of Loudness and Times to Generate Auditory Images

	Loudness Rating		Generation Time (in Milliseconds)	
	Mean	SE	Mean	SE
Whisper	1.23	.044	1187	158.543
Champagne Bubbling	1.39	.071	1161	415.434
Alka Seltzer	1.46	.060	995	411.052
Cat Purring	1.54	.065	948	371.838
Sigh	1.54	.094		
Bee Buzzing	1.96	.080	907	202.923
Faucet Dripping	1.96	.089		
Clock Ticking	2.23	.116	1823	278.978
Cricket Chirping	2.31	.093	1260	465.582
Wind Chimes Tinkling	2.38	.093	1066	232.184
Fire Crackling	2.66	.104	1044	290.298
Popcorn Popping	2.97	.082	1491	374.556
Typewriter Typing	3.49	.098	1248	174.575
Laughter	3.76	.103	1329	195.016
Surf Pounding	4.13	.121	825	251.405
Telephone Ringing	4.23	.118	1053	265.112
Vacuum Cleaner Cleaning	4.24	.114	1659	226.053
Clapping	4.50	.120	1276	232.614
Horn Honking	5.16	.107	760	217.962
Slamming a Door	5.33	.115	1490	168.598
Opera Singer Singing	5.38	.113	1004	294.834
Train	5.67	.118	897	194.541
Chain Saw	5.80	.106		
Firecrackers Going Off	5.80	.093		
Gun Firing	5.96	.117	1164	106.437
Crash	6.02	.097	1419	319.286
Police Siren	6.05	.092	995	292.994
Thunder	6.19	.094	1409	217.313
Volcano Erupting	6.46	.089	1349	308.617
Dynamite Exploding	6.83	.047	773	248.442

Figure 3(k) (Inton-Peterson 386)

This table suggests that participants can distinguish between the loudness of different sounds in auditory imagery based on the text cues. Inton-Peterson chose to focus more on noises rather than dialogue for her experiment. However, 'whisper' is rated 1.23 for loudness, while 'laughter' is rated 3.76. This suggests, similarly, that the word 'shouted' or the original 'crier' in French would similarly

have a higher loudness rating than, for example, 'dire' or 'chuchoter'. As mentioned in the introduction (40), studies such as Rofes et al (2018 and Krasny and Sadoski (2008) found high positive correlations for perceptual strength and imageability ratings respectively between English and French.

I would argue that there is a positive correlation between vividness and the loudness of an auditory image, which is to say that the louder a sound is in an auditory image, the more vividly it is imagined. The data from the Lancaster Norms already supports this idea to some extent. While all of the words in Figure 3(c) (178) rate highly in the auditory module, louder verbs have slightly higher perceptual strength. For example, the verb 'screech' is the most highly-rated on the auditory modality (4.842), closely followed by 'shriek' rated at (4.778). Similarly, in Figure 3(d), which contains the Lancaster Norms ratings for noise words, the highest-rated word is 'boom' (4.824), which is also arguably the loudest sound. In *Inès de Las Sierras*, therefore, the loudness of the sound suggested by 'cria' likely contributes towards its vivid visualisation. The pitch implied by 'cria' might also contribute in part here; it could be argued that different text cues sometimes imply inherently different pitches. For example, the word "shriek" or "screech" might usually be associated with a high-pitched female voice rather than a deep male voice, whereas a verb like "grumble" or "groan" usually implies a lower-pitched voice. However, there is little research linking pitch and vividness.

Context and Vividness

The auditory perceptual strength graph for *Inès de Las Sierras* does not indicate that the introduction of the ambiguously supernatural incident should be notably easier to have an auditory image of, despite the prominent role played by Inès's dialogue in the text. What is likely to contribute further to heightened auditory imagery here is the emotion-evoking writing, particularly relating to the context. As argued when discussing *Inès de Las Sierras* in Chapter 2 (145), perceptual strength word banks may sometimes offer an inaccurate representation of the perceptual strength of a sentence as compared to its standalone words, in part because it cannot take the context in which that

sentence is presented in a fictional text into account. Before Inès's introduction in this scene, she has been established as a woman who was killed two hundred years ago, and who is claimed to return to haunt the castle and kill any visitors on the anniversary of her death, when the travellers are visiting. When Bascara narrates her myth before the characters arrive at the castle, he claims that Inès's ghost arrived to kill those who killed her on the anniversary of her death as follows.

> Revint enfin l'anniversaire du 24 décembre (c'est aujourd'hui, mes seigneurs !), et le repas du soir les réunissait comme d'ordinaire à la clarté d'un foyer ardent, quand l'heure de la rédemption sonnait à Mattaro pour convoquer les chrétiens à ses solennités. Tout-à-coup une voix s'élève dans la galérie du château : *Me voilà criait Inès !* c'était elle. (16)[23]

Having gone past this point in the story, the reader enters the key ambiguously supernatural incident and the associated auditory text cue knowing that the voice belongs to Inès. This is further heightened by the repetition of the same verb for the myth and the incident, 'crier'. The likely imagined loudness of the sound is thus combined with the emotion-evoking writing of the characters believing that the ghost of Inès is possibly present in the castle, and a likely threat. I would therefore argue that the auditory text cues surrounding Inès's appearance is key in creating heightened vividness for the *fantastique* moment. Though I will not discuss it further here, it is worth mentioning that the first part of the conversation which then follows Inès's arrival and revolves around the men's emotional reactions and them questioning her identity is also likely to be more auditorily vivid, both because of the amount of dialogue in those segments, and the descriptive emotionally evocative writing in the scene as she carries out all the actions from the story told about her earlier in the text.

As my hypothesis argues for inconsistent rather than heightened vividness when engaging with the *fantastique*, it is important also to consider whether the auditory vividness drops after the suggested rise with Inès's appearance. As discussed in Chapter 2 (149), the transition from descriptive emotion-evoking writing to literal expressions of emotions from Segment 21 to 22 likely leads to a

[23] My Italics

drop in vivid visualisation. As mentioned in the introduction, research on minimal departure suggests that readers are capable of quickly adapting to unexpected events in a text (28). The lengthiness of the interaction with Inès which mainly revolves around conversation between her and the other characters likely works towards humanising her and contributes towards the reader getting used to Inès's presence during Segments 22-29. Inès's sudden disappearance then elicits a second ambiguously supernatural incident at Segment 30. The reader is aware that Inès's behaviour with the travellers so far matches that in the myth, which ends with her killing her companions. Inès invites Sergy to her room. Her disappearance is then described as follows:

> Qui m'aime me suive, répondit Inès en poussant un éclat de rire effrayant. Au même instant elle ramassa son linceul et nous ne la vîmes plus ; l'obscurité des parties éloignées de la salle nous l'avait cachée déjà pour toujours. (171)

There are only three words in this section on Desrochers's list: 'éclat", 'rire', and 'instant'. All are rated at between 2.4 and 4.5. As per Desrochers's ratings therefore, this segment is not very perceptually strong. Similarly, on the Lancaster Norms, the visual perceptual strength is only 2.72, and there are no significant changes in the kinaesthetic imagery. The auditory imagery is lower than the previous point. Inès's disappearance, however, is still likely to be vivid with the emotion-evoking description of her laughter. Following her humanisation as Inès talks to the travellers, and her involvement with Sergy, which also emphasised her vulnerable nature with numerous descriptions about her past unhappy life, her disappearance with this auditory cue raises questions again about her possibly dangerous and supernatural nature.

La Vision de Charles XI

The summary of *La Vision de Charles XI* has been provided earlier in Chapter 2 (137). There is one instance of uncomfortable dialogue in *La Vision de Charles XI*, which is the moment the supernatural creatures address Charles. The dialogue is as follows.

‘Le fantôme lui répondit lentement et d’un ton solennel :

« CHARLES ROI ! ce sang ne coulera pas sous ton règne... (ici la voix devint moins distincte) mais cinq règnes après. Malheur, malheur, malheur au sang de Wasa ! »’ (470)

The graph for *La Vision des Charles XI* with the Lancaster Norms for the visual, auditory, and haptic modalities is as follows.

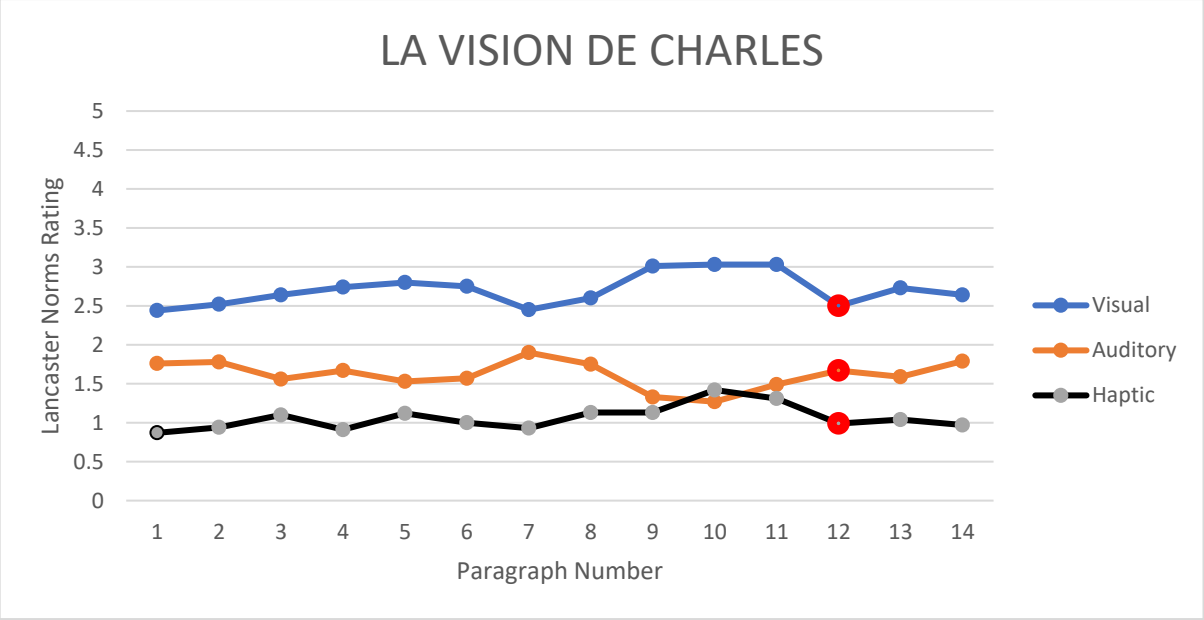


Figure 3(l)

The moment when the supernatural creatures speak in *La Vision de Charles XI* (Segment 12 on Figure 3(m) can be classified as uncomfortable dialogue because the characters in the text are still uncertain and scared about the events taking place. However, as in *Inès de Las Sierras*, the auditory perceptual strength is not particularly heightened at this moment as per the Lancaster Norms. The most heightened moment again occurs in a conversation the characters have about entering the room, in which many different characters speak and which thus includes many speech words such as ‘cry’, ‘hear’, ‘sound’, ‘call’, ‘noise’, ‘clatter’, and ‘said’.

There is no indication of the dialogue being spoken loudly in *La Vision de Charles* as was the case in *Inès de Las Sierras* (193); the speech verb in the *fantastique* passage is 'répondit'. There is therefore little indication of loudness or perceptual strength contributing to vividness here. However, the use of direct speech might encourage the reader to visualise the dialogue more vividly (Yao et al 2011). Additionally, the dialogue grabs the reader's attention with the capitalisation, "CHARLES ROI". A number of informal articles claim that writing with capitalisation for every word slows a reader down because of the less distinct, rectangular shape formed by the word (Uxmovement 2010). Additionally, an experiment conducted by Tinker and Paterson (1929) suggested that reading a text in all capitals slowed down a reader by 13.4%. A replication done by Özgür Babayiğit in 2019 reached the same conclusion, finding a 13% difference in reading speed between a text with all capital letters and a text with no capital letters (377). Though the latter was conducted using a Turkish text, the two languages follow the same rules for capitalisation of proper nouns. It is thus likely that the capitalisation of Charles's name at the beginning of the dialogue increases the reader's attention and contributes towards increasing vividness. Research by Petkov et al (2004) and Shomstein and Yantis (2004) have illustrated a positive correlation between attention and activity in the auditory cortex. Given that Yao et al's (2011) experiment suggests that the auditory cortex is also activated when silent-reading direct speech and heightens vividness, it could be argued that a moment which captures the reader's attention *and* uses direct speech further increases vividness. The capitalisation followed by the exclamation point may also encourage the reader to imagine an amplified sound even without the speech verb expressing it and likely contributes towards the passage's emotion-evoking writing.

Mérimée also provides clear instruction for how the auditory imagery decreases after the moment of initial vividness; the supernatural being's dialogue is interrupted when 'ici la voix devint moins distincte' (470). It is difficult to assess the extent to which the reader would obey such text instructions, but combined with the return to non-capitalised text, it is likely that the reader's auditory vividness would drop here following the initial spike, perhaps contributing towards an overall drop in

vividness. It is also worth looking at the segment which follows, describing the disappearance of the supernatural creatures.

> Alors les formes des nombreux personnages de cette étonnante assemblée commencèrent à devenir moins nettes et ne semblaient déjà plus que des ombres colorées, bientôt elles disparurent tout à fait ; les flambeaux fantastiques s'éteignirent, et ceux de Charles et de sa suite n'éclairèrent plus que les vieilles tapisseries, légèrement agitées par le vent. *On entendit encore, pendant quelque temps, un bruit assez mélodieux, qu'un des témoins compara au murmure du vent dans les feuilles, et un autre, au son que rendent les cordes de harpe en cassant au moment où l'on accorde l'instrument*. [24](14)

The above quote contains a direct reference to what the character hears with 'on entendit encore…'. In the graph, there is a drop here from 1.67 to 1.59 in auditory perceptual strength. Mérimée's creates a comparison with 'du vent dans les feuilles' and 'les cordes de harpe en cassant au moment où l'on accorde l'instrument'. This chapter argues that auditory imagery feeds into vivid visualisation. However, in this case uniquely, I would argue that these three separate textual auditory cues might cause a further decrease in vividness than illustrated by the Lancaster Norms. The first reason for this decrease is the absence of compatibility between Mérimée's two comparisons. 'Du vent dans les feuilles' implies a barely audible sound. 'Les cordes de harpe en cassant au moment où l'on accorde l'instrument', on the other hand, is likely to create a more auditorily vivid association with the musical instrument, but also encourages the reader to use their auditory imagery for a very different kind of sound which has a specific pitch and is more easily distinguishable than wind rushing through leaves. The distance between the two descriptions could create auditory imagery that is more challenging to evoke and therefore likely less vividly. In *La Vision de Charles* overall, the auditory imagery heightens vividness when the uncomfortable dialogue takes place but is then likely to be

[24] My Italics

reduced both by the lack of auditory perceptual strength and the confusing auditory text cues in the paragraphs which follow.

Sound

For the purposes of this chapter, I am defining 'sound' as non-human noises. There are text descriptions of sounds scattered throughout my *fantastique* corpus, such as the ringing of bells *(Une Heure*), the rings on a curtain rod as the curtain is drawn back (*La Morte Amoureuse*), the sound of castanets (*Inès de Las Sierras*) and footsteps (*La Vénus d'Ille*). Of these examples, the most prominent association between the auditory imagery of the sound and the ambiguously supernatural incident occurs in *La Vénus d'Ille*. As mentioned earlier, in *La Vénus d'Ille*, Mérimée offers the reader solely auditory cues for the *fantastique* incident, as the narrator does not see but rather hears the statue moving.

La Vénus d'Ille

As described in the introduction (42), the ambiguously supernatural incident in *La Vénus d'Ille* described the narrator hearing heavy footsteps at night from his room. The story is notable in the absence of a described visual component to the text description; the narrator hears but does not see the source of the sound. The ambiguously supernatural passage in *La Vénus d'Ille* reads as follows.

> Durant mon monologue, que j'abrège beaucoup, j'avais entendu force allées et venues dans la maison, les portes s'ouvrir et se fermer, des voitures partir ; puis il me semblait avoir entendu sur l'escalier les pas légers de plusieurs femmes se dirigeant vers l'extrémité du corridor opposé à ma chambre. C'était probablement le cortège de la mariée qu'on menait au lit. Ensuite on avait redescendu l'escalier. La porte de Mme de Peyrehorade s'était fermée. Que cette pauvre fille, me dis-je, doit être troublée et mal à son aise ! Je me tournais dans mon lit de mauvaise humeur. Un garçon joue un sot rôle dans une maison où s'accomplit un mariage. Le silence régnait depuis

quelque temps lorsqu'il fut troublé par des pas lourds qui montaient l'escalier. Les marches de bois craquèrent fortement. "Quel butor ! m'écriai-je. Je parie qu'il va tomber dans l'escalier." Tout redevint tranquille. Je pris un livre pour changer le cours de mes idées. C'était une statistique du département, ornée d'un mémoire de M. de Peyrehorade sur les monuments druidiques de l'arrondissement de Prades. Je m'assoupis à la troisième page. Je dormis mal et me réveillai plusieurs fois. Il pouvait être cinq heures du matin, et j'étais éveillé depuis plus de vingt minutes lorsque le coq chanta. Le jour allait se lever. Alors j'entendis distinctement les mêmes pas lourds, le même craquement de l'escalier que j'avais entendus avant de m'endormir. Cela me parut singulier. (752)

The following graph shows the mapping of the auditory and haptic modalities in *La Vénus d'Ille* using the Lancaster Norms.

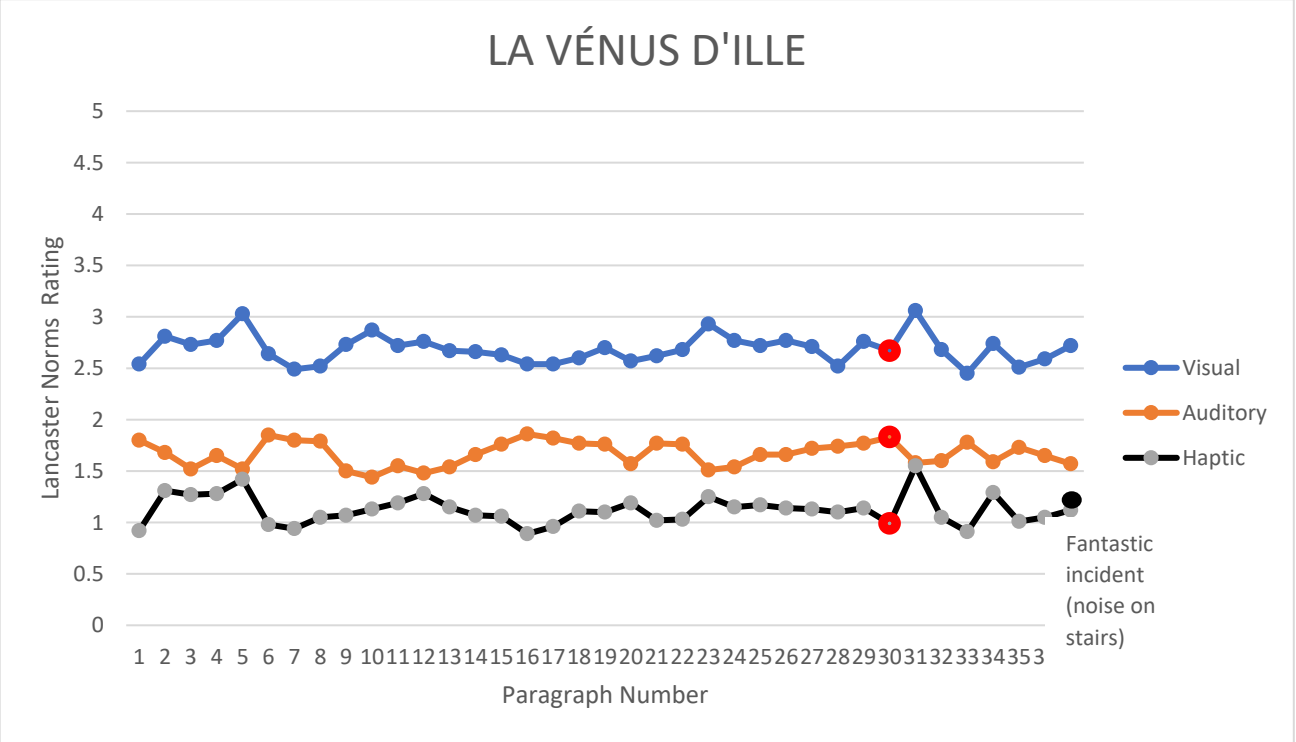


Figure 3(m)

The ambiguously supernatural incident occurs at point 30. *La Vénus d'Ille* is the only text in which the significance of the auditory imagery in the *fantastique* incident is reflected in the Lancaster Norms mapping. The auditory perceptual strength average for the *fantastique* passage is the second-

highest in the text with 1.83 (the highest being 1.85 for Segment 6, which contains a conversation between characters).

The *fantastique* moment has a number of words which rate highly on the auditory modality, such as 'shut', 'step', 'stairs', 'tread', 'creak', 'cry', 'quiet', and 'footsteps'. As in *Inès de Las Sierras* (195), the descriptive emotion-evoking writing of this scene is likely to be a valuable contributor towards vivid visualisation considering the reader's context awareness. Preceding the ambiguously supernatural incident, in Segments 28 and 29, another character tells the narrator that he believes the Venus statue is coming to life as 'elle a serré la doigt' (751). Though the rational narrator refuses to believe him, when he hears heavy foosteps on the stairs in Segment 30, the reader is likely to be able to understand the allusion being made to the Venus possibly climbing the stairs. Additionally, it is worth looking at Mérimée's emphasis on clear auditory cues for the *fantastique* incident in this text compared to the auditory imagery just before the incident. Mérimée first describes less distinct sounds; he mentions multiple auditory cues right after one another, such as doors closing, cars leaving, and light footsteps. The two sets of footsteps, 'les pas légers de plusieurs femmes' and 'des pas lourds qui montaient l'escalier' are separated by a period of silence, making the latter more distinct. Finally, the phrase 'Les marches de bois craquèrent fortement' creates a particularly amplified auditory image, both because of the reader's awareness of the silence which preceded it and the use of the adverb 'fortement'. Through a combination of descriptive emotion-evoking writing using context awareness as well as the noise's amplification (Intons Peterson 1980) and comparative clarity as compared to the softer sounds described before which may contribute towards increasing the reader's attention, auditory imagery is likely to heighten vividness of the reader's visualisation significantly during the ambiguously supernatural incident in *La Vénus d'Ille*, especially with the absence of any visual cues.

This section has discussed how auditory imagery may heighten vividness for readers when engaging with the ambiguously supernatural incident featured in *fantastique* texts. Though not usually mirrored in the Lancaster Norms because of the standalone word ratings, factors such as amplification,

use of direct speech, and emotion-evoking writing, which cannot entirely be measured by the norms, often contribute towards heightening the reader's auditory imagery vividness during the ambiguously supernatural incident both with dialogue (*Inès de Las Sierras*, *La Vision de Charles XI*), and sound (*La Vénus d'Ille*).

The Haptic

There is a significant disparity between research on visual and auditory imagery, which has already been mentioned (179). The gap is even wider between visual and haptic research; there is virtually no research or experimentation done on the haptic imagery which occurs when reading fiction. This is possibly in part because of the difficulty in separating the haptic and the visual. In all the Lancaster Norms mappings of the corpus texts, the correlations between the visual and haptic modalities for each text are always significantly positive, ranging from 0.64 (*La Morte Amoureuse*) to 0.89 (*Une Heure ou la Vision*). This mirrors the trend of the haptic and visual modalities' moderately positive correlation for all words in the Lancaster Norms (0.45) (also seen in Figure 3(a) on 174). The strong relationship between the visual and the haptic can further be illustrated by the ratings of common words associated with physical contact on the Lancaster Norms.

Word	Auditory.mean	Haptic.mean	Interoceptive.mean	Visual.mean
CLUTCH	1	3.889	0.889	3.444
COLD	0.368	4.105	3.526	1.684
FEEL	1	4.706	2.706	1.412
GRAB	0.833	3.556	0.944	2.722
GRIP	0	4.75	1.188	2.812
HARD	1.15	4.55	1.5	2.9
HIT	1.8	3.05	2.15	3.15
HOT	0.647	4.118	2.412	1.706
PAT	1.097	3.968	0.613	2.71
SOFT	0.684	4.526	0.842	1.947
SQUEEZE	1.45	4.15	1.55	3.45
STROKE	0.588	1.706	3	2.471
TOUCH	0.562	4.875	1.312	2.625

Figure 3(n)

Though the words rate more highly on the haptic modality than the visual, there is clearly less of a gap between the ratings for the two modalities than between the auditory and visual modalities. Words such as 'grab', 'clutch', and 'squeeze' have a visualisable element as well as a haptic one because the action requires someone to be doing the movement. Other words such as 'hot', 'cold', and 'soft' maintain a clearer gap between the visual and the haptic ratings. The table above suggests that haptic perceptual strength is distinct from the visual when it is a descriptive adjective, but not so much when it is a physical action.

Descriptive haptic adjectives are found most frequently in Gautier's *fantastique* works in relation to his usually-female *fantastique* characters. One could consider the moment when Clarimonde first touches Romuald's hand in *La Morte Amoureuse*, 'Elle était froide comme la peau d'un serpent,

et l'empreinte m'en resta brûlante comme la marque d'un fer rouge' (530). This is a striking phrase in terms of haptic description and the likely vividness it elicits. It is worth noting however that even this sentence on its own scores 1.35 on the haptic modality, and 2.59 on the visual scale, both out of a possible 5. This once again suggests, firstly, how closely related the haptic and the visual are, and secondly, how the visual is likely easier for the reader to evoke even in sentences with strong haptic text descriptions.

It is then worth asking to what extent haptic imagery affects vividness of visualisation in the ambiguously supernatural incident. Two possible ways in which haptic descriptions can add to vivid visualisation are solidity and weightedness.

Solidity and Weightedness

By 'solidity', I am referring to a text description which emphasises the bodily presence of a character, in this case usually the source of the *fantastique*. This could be a description of their body, a haptic interaction between them and another character or them touching an object. This cannot therefore be argued to be an exclusively haptic component in these *fantastique* works; there is usually a strong connection with the visual. However, references to a *fantastique* creature's solidity usually suggests tactility by including text descriptions of physical interactions between the character and an object or person. 'Weightedness', on the other hand, refers to any text descriptions which suggest the weighted presence of the character, such as them leaning on a character, lifting an object, and other such actions. It is closely associated with solidity, as an object must be established as solid for it to be described to place its weight on anything.

I would argue these two concepts fit into the haptic modality in relation to the ambiguously supernatural incident more than any other. Though the reader might gauge a sense of the *fantastique* creature's solidity or weightedness while visualising, it is not information that can solely be visualised. Solidity is usually mainly established through physical contact between the *fantastique* creature and

a character. Weightedness, similarly, involves physical pressure of the creature against something else. There is a significant haptic component in both.

The idea of solidity and weightedness are particularly relevant to the *fantastique* because the ambiguity of the supernatural incident can come from the protagonist thinking they are hallucinating or dreaming the presence of the *fantastique* creature. The text descriptions which suggest solidity and weightedness contribute to the reader visualising a more humanised *fantastique* creature. Within the context of the ambiguously supernatural incident, the solidity and weightedness thus concretise the presence of the *fantastique* creature in the ordinary world of the character, making the ambiguously supernatural incident seem more likely to be happening rather than dreamt or hallucinated by the character. This concretisation is then often upset by the usually abrupt and almost-traceless disappearance of the *fantastique* creature (*Une Heure*, *Inès de las Sierras*, *La Vision de Charles XI*, *La Cafetière*) or their transformation into an otherworldly creature (human to vampire in *La Morte Amoureuse*, statue to alive in *La Vénus d'Ille*).

Tim Chesters has suggested that there is significant overlap in how a reader understands the concept of a human being and that of a ghost, drawing on the work of anthropologist Pascal Boyer:

> We could say that understanding the concept GHOST comes at only a limited cognitive price: we simply take the ontological template PERSON and subtract from it 'has a normal human body'[...]every other inferential mechanism normally prompted by the source category continues to yield a rich array of cognitive effects: we go on inferring the same range of perceptual and mental states, such as *seeing, hearing, thinking, remembering,* etc., as would usually be generated by the concept PERSON. (59)

Chesters's argument implies that a reader does not visualise a ghost very differently from a human being but understands it to have a different physical body. Textual images of solidity, however, cause the reader to consider the *fantastique* creature as more human than ghost; it often emphasises their human-like physical qualities.

Suggesting a *fantastique* creature's solidity is likely to heighten a reader's vividness of visualisation. The vividness could occur as emphasising the solidity of a *fantastique* creature usually relates to the descriptive emotion-evoking writing featured in the ambiguously supernatural incident. It could be argued that the reference to solidity contributes to the uncanny in a Freudian sense. Freud argues that the "uncanny" is 'that class of the terrifying which leads back to something long known to us, once very familiar' (1919, 1). He takes the example of Olympia from Hoffman's *Derr Sandmann* (1816), the woman the protagonist falls in love with before realising she is a doll, not human. When the reader encounters a text image of solidity in association with a *fantastique* creature, it causes this sense of discomfort-inducing familiarity, as the creature seems human, but is yet clearly not so. Solidity is therefore likely to increase vividness by emphasising the visualisation of a human creature for the reader. Though a *fantôme* has high perceptual strength as a standalone object on Desrochers's list, visualising interactions between two humans might be easier for the reader. The likely facilitated perceptual strength in conjunction with the unease and even fear encouraged by the uncanny nature of a *fantastique* creature being solid together contribute to heightening vividness.

Most of the arguments made about these two concepts, solidity and weightedness, originate from Elaine Scarry. Scarry argues that solidity is 'usually a main feature distinguishing perceptual objects from their gauzy counterparts in our imagination' (10) and asks how this concept can sometimes be achieved in our imagination, given that the reader cannot haptically engage with it. Scarry then claims that heightened visualisation occurs when a filmy, or translucent object passes over another, covering and uncovering it, and therefore drawing attention to the solid and dense nature of the object below. Elaine Auyong refers to Scarry's argument when discussing a passage from Tolstoy's *Anna Karenina* (1878):

> 'Recall, for example, Tolstoy's intricate description of Kitty's arm, which perfectly illustrates Elaine Scarry's account of how verbal artists use transparent surfaces to "confirm the solidity" of the objects layered beneath them. Kitty's shaking lace sleeve "works to verify the density" of her white arm.' (586)

In their paper 'A New Imagery Debate: Enactive and Sensorimotor Accounts' (2016), Foglia and O'Regan discuss ideas of enactive and sensorimotor imagery, describing how imagined movement of holding an object involves similar processes to holding an object. They offer the example of reaching for a corkscrew:

> Imagine the action of grabbing a corkscrew in order to open a bottle of wine. You can form such an image, the theory states, because an emulator of the body, upon receipt of an efferent copy of the motor command, generates a mock version of the proprioceptive information that the body would produce were the motor command to be effectively executed. (186)

As suggested by the above quote, a text image using references to solidity emphasises the characteristics of an object that the reader associates with real-life haptic perception. It is possible that that haptic imagery elicited by solidity thus causes the reader to visualise vividly by relating to real-life perception.

Scarry does not discuss weightedness in as much detail as she does solidity. Her only mention is as follows: 'Place in the mind, then, a man, a book, and a leaf. Each is a weightless image. Each is lighter than a piece of fluff. But then having the man place the leaf on his fingertip. Then, removing the leaf, put the book on his outstretched hand[…]the mimesis of weight is soon achieved' (27). Scarry therefore suggests that a reader is made aware of an object's weight when it interacts with something else in the text. In relation to a *fantastique* creature, their often-assumed weightlessness due to their ghostlike nature is thus confused when they have a physical interaction that draws attention to their weight. A study conducted by Schneider, Buckingham, and Hermsdörfer (2020) found that participants used anticipatory motor planning in assessing an object's weight before lifting it and behaved based on their assessment of how much the object was likely to weigh (407). It is possible to hypothesise that a reader mentally does the same for objects encountered in a text and may then be surprised if an object does not match the predicted weightedness. When using the grabbing a corkscrew example to illustrate 'grabbiness' in real-life perception, Foglia and O'Regan write: 'Actions also involve a

sequence of proprioceptive states both in terms of sensations (what it will feel like) and kinematics (where and when the hand will arrive), for which an emulator of the body is required' (186). While they mention this argument in relation to grabbiness, it is likely to also apply to weightedness.

When a reader reads a word such as 'fantôme' (*Inès de Las Sierras* 131) associated with the ambiguously supernatural creature, their multimodal image of said creature is likely to be more weightless than when reading a word like 'femme' (*Apparition* 784) based on their perceptual understanding of the two words. When haptic contact is then anticipated between the protagonist and the ambiguously supernatural creature in these two cases, a reader's predictive processing would encourage them to imagine something weightless in the first example (fantôme) and something weighted in the second example (femme). While their expectations are met in the Maupassant text when the unnamed narrator combs the woman's hair, in *Inès de Las Sierras*, the description of the *fantôme* running towards the narrator is striking in its contrast of a human verb for a ghost. This difference might contribute towards making the descriptive emotion-evoking writing of the ambiguously supernatural creature more striking, which should then heighten the reader's vividness of visualisation. I would thus argue that the reader's 'emulation' of weightedness is disturbed in the *fantastique* when, a possible ghost is suggested to have weight using haptic imagery, or a character perceived to be human is found to be weightless.

The relationship with Freud's uncanny as well as the research discussed here such as that of Foglia and O'Regan (2016) suggest that, besides creating a more vivid visualisation because of the emphasis on real-life perception, solidity and weightedness are also likely to feed into emotion-evoking writing. Chapter 2 drew a distinction between three kinds of emotion-evoking writing: literal, descriptive, and bodily. 'Literal' referred to explicit expressions of an emotion, descriptive referred to body language related to an emotion, and descriptive referred to the text description of an object, person, or action that encourages the reader to respond emotionally. Weightedness should contribute towards descriptive emotion-evoking writing particularly when an ambiguously supernatural creature

is described as weightless before a weighted element is introduced. The weightedness of an ambiguously supernatural creature then amplifies threat for the protagonist and encourages emotional responses of fear for the reader. The decapitation of the prisoner's head in *La Vision de Charles* which then rolls towards the characters and stains his shoe, and Inès running towards the narrator and his friends after being described as a 'fantôme' thus heighten vividness through descriptive emotion-evoking writing, both because of the reader's inaccurate predictions, and the increased threat to the protagonist.

All the selected corpus texts use text descriptions of weightedness and solidity to some extent. In *Une Heure ou La Vision*, Octavie leans over the young man's body with repeated allusions to a weighted presence being made as she does so. In *Inès de Las Sierras*, Inès reveals her presence by slipping off a sheet, which elicits the vividness caused by kinetic occlusion. She also eats and drinks with the travellers and puts her arms around Sergy's neck, which alludes to her weightedness. In *La Cafetière*, Angéla dances with Théodore, leans on him, and sits on his lap before transforming back into a coffee pot. In *La Morte Amoureuse*, Clarimonde physically interacts with Romuald numerous times, illustrating her weightedness. In *La Vision de Charles*, the solidity of the corpse and the decapitated man is suggested in contrast to the weightless crowd. In *La Vénus d'Ille*, the statue's weight is heavily emphasised on multiple occasions. As with the auditory section, I will particularly focus on haptic imagery in relation to weightedness and solidity which influences vividness around the ambiguously supernatural incident. This section will therefore look at *Une Heure ou La Vision*, *La Morte Amoureuse*, and *La Vénus d'Ille*. The haptic section will further be divided into human-like contact (*Une Heure*) and non-human contact (*La Morte Amoureuse*, *La Vénus d'Ille*).

Human-like Contact

By human-like contact, I am referring to physical contact between an ordinary character (usually the narrator), and a *fantastique* source who resembles a human being. Examples of such contact

can be found in *Une Heure ou la Vision*, *La Cafetière*, *La Morte Amoureuse*, and *Apparition*. I will reserve the segment on *Apparition* to be discussed with the experiment results in the final chapter.

Une Heure ou la Vision

Charles Nodier's *Une Heure ou La Vision* (1806) tells the story of the narrator meeting a young man at a graveyard. The young man then tells him the story of his deceased lover, Octavie, who he claims to have seen on the first anniversary of her death. While Octavie's lover and Octavie have no described physical contact while she is alive, there is a significant moment of haptic contact between the couple following her death. The passage emphasising her weightedness reads as follows:

> Je vis distinctement qu'elle flottait dans une vapeur aussi douce que l'aurore. Je perdis connaissance, et Octavie ne s'éloigna point de moi. Elle se pencha sur mon corps immobile, et son haleine brûlante réchauffait mon sein. Ses baisers volaient de ma bouche à mes paupières, à mes cheveux. Ses bras m'enveloppaient mollement, et me berçaient dans une région pleine de lumière et de parfums. Il y avait sur mes organes un fardeau de volupté. (Nodier 309)

There a particularly strong emphasis on haptic imagery in this passage. The heightened haptic perceptual strength is illustrated through the Lancaster Norms graph for *Une Heure ou la Vision*:

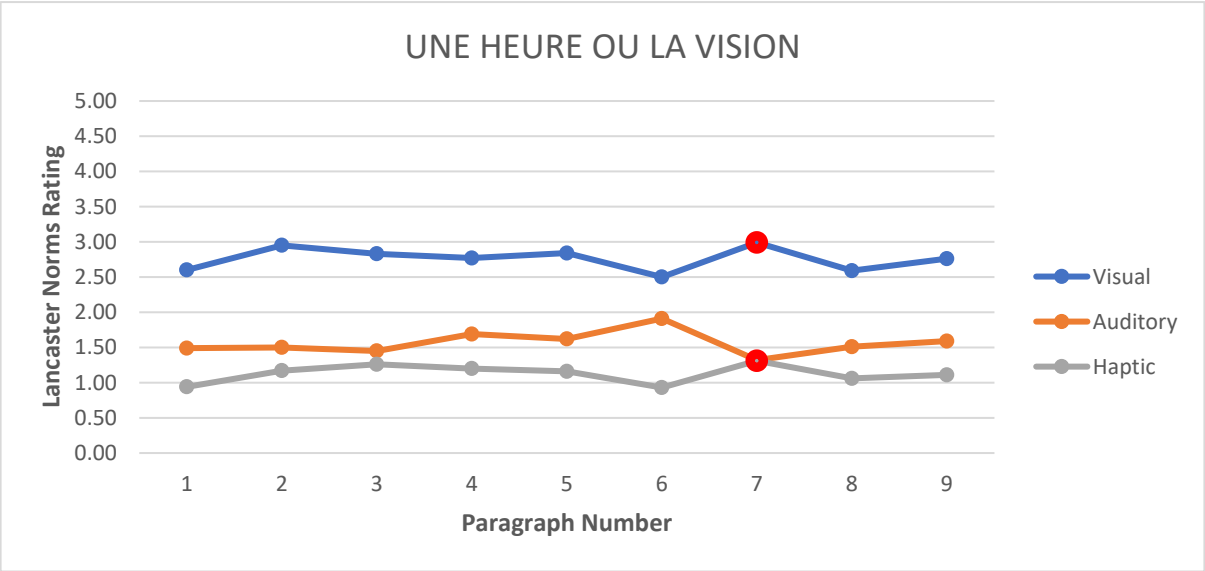


Figure 3(o)

Point 7 indicates that visual and haptic perceptual strength are both at their highest during the ambiguously supernatural incident. The passage contains both descriptive haptic nouns and adjectives such as 'hot'/'brûlante', 'breath'/'haleine', and 'kiss'/'baiser', but also a number of haptic verbs such as 'lean'/'se pencher'. There is also the mention of a number of body parts which tend to rate highly on the haptic modality in the Lancaster Norms, such as 'body'/'corps', 'breast'/'sein', 'mouth'/'bouche', 'eyelid'/'paupière', and 'arm'/'bras'.

This passage begins by explicitly stating Octavie's *weightlessness* with 'elle flottait'. Once she then leans over him, the tactile image of him feeling her 'haleine *brûlante*' is likely to increase the reader's vividness of visualisation because of the contrast it creates with their earlier image of her as a phantom-like being. Another striking sentence to consider in this description is 'Il y avait sur tous mes organes un fardeau de volupté' (70). Though the 'fardeau' is metaphorical in this sentence as it is being used with *volupté*, its use in conjunction with the visualisation of Octavie leaning on the man's body and physically interacting with him may elicit the concept of a weighted human in contrast to Octavie's weightlessness visualised in her initial appearance. Nodier goes further with his use of metaphors to almost suggest an inverse situation in which the living narrator of the passage is more weightless than Octavie, writing, 'Ses bras m'enveloppaient mollement, et *me berçaient* dans une

région pleine de lumière et de parfums'. The use of haptic imagery in this passage and the strong impression it creates of Octavie's weightedness so close to her initially understood weightlessness is likely to have a striking emotional impact on the reader with its descriptive emotion-evoking writing. Haptic imagery here should therefore contribute towards increasing vividness during the ambiguously supernatural incident.

Non-Human Contact

By non-human contact, I am referring to contact between a *fantastique* trigger that has already been revealed not to be human, and an ordinary character. Examples of this can be found in *La Morte Amoureuse* in the physical contact which occurs *after* Clarimonde is revealed to be a vampire, and in *La Vénus d'Ille* in the haptic imagery of the statue which allegedly came to life.

La Morte Amoureuse

As mentioned in Chapter 2 (154), there are three ambiguously supernatural incidents in *La Morte Amoureuse*. The first two, Clarimonde coming back to life and Clarimonde being revealed to be a vampire, were discussed in Chapter 2 (156 and 158 respectively). The third ambiguously supernatural incident will be discussed here.

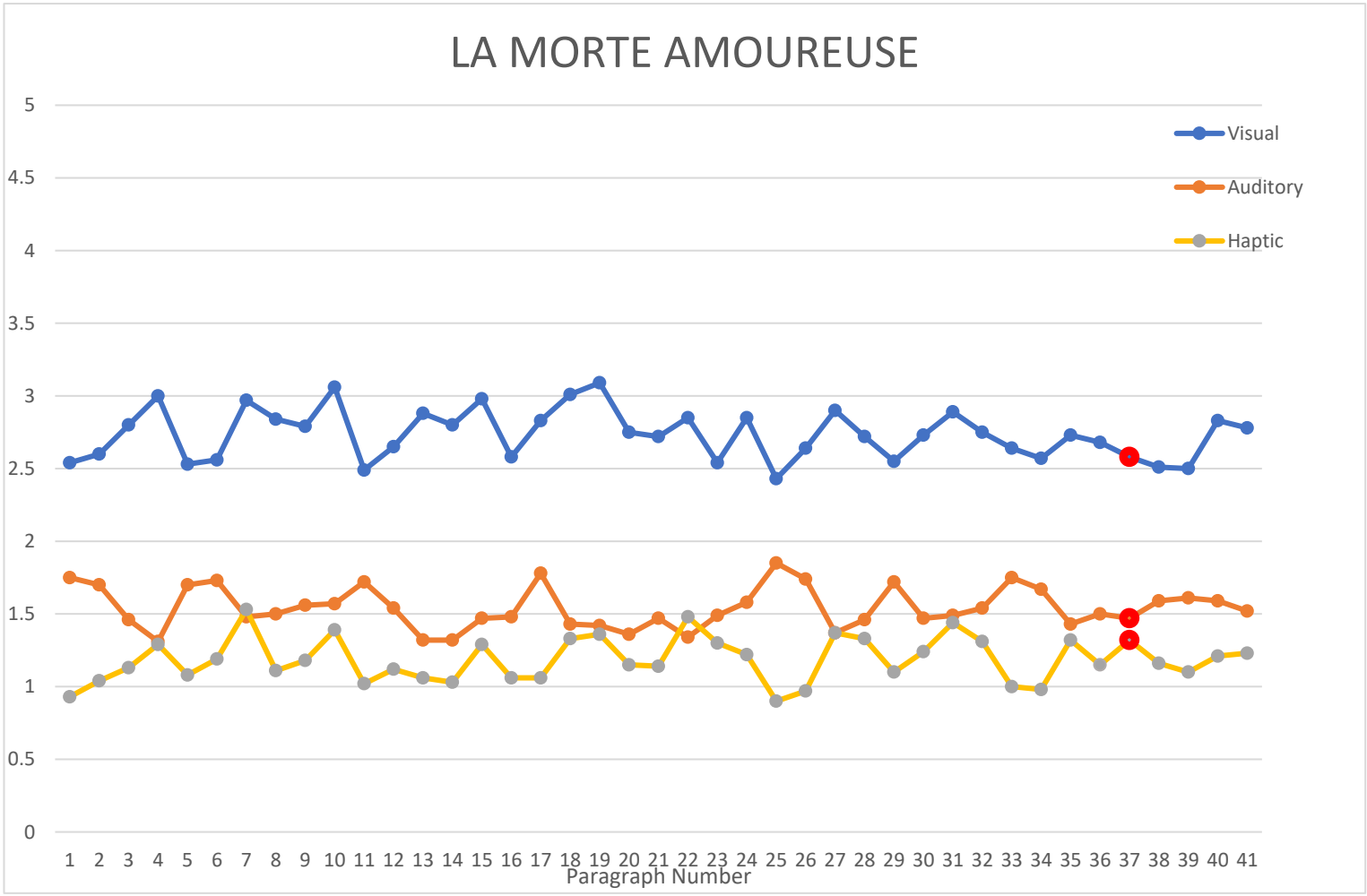


Figure 3(p)

The above graph does not reveal a particularly heightened moment in terms of perceptual strength during the third ambiguously supernatural incident. The most haptically imagable moment occurs at point 7, which is when Clarimonde touches Romuald's hand. The key *fantastique* moment in which Clarimonde first drinks Romuald's blood occurs at Point 35 is highly visual and has been extensively discussed in the previous chapter. I would like to draw attention to the only other ambiguously supernatural encounter described between Romuald and Clarimonde following Point 37, which describe Clarimonde drinking Romuald's blood for the second time and is more focused on haptic text description. The key passage is as follows :

> Clarimonde entra en robe de nuit, et, s'étant débarrassée de ses voiles, s'allongea dans le lit auprès de moi. Quand elle se fut bien assurée que je dormais, elle découvrit mon bras et tira un épingle d'or de sa tête; puis elle se mit à murmurer à voix basse: "Une goutte, rien qu'une petite

> goutte rouge, un rubis au bout de mon aiguille... Puisque tu m'aimes encore, il ne faut pas que je meure... Ah pauvre amour ! Ton beau sang d'une couleur pourpre si éclatante, je vais le boire. Dors, mon seul bien ; dors, mon dieu, mon enfant ; je ne te ferai pas de mal, je ne prendrai de ta vie que ce qu'il faudra pour ne pas laisser éteindre la mienne. Si je ne t'aimais pas tant, je pourrais me résoudre à avoir d'autres amants dont je tarirais les veines ; mais depuis que je te connais, j'ai tout le monde en horreur...Ah le beau bras comme il est rond comme il est blanc ! Je n'oserai jamais piquer cette jolie veine bleue. "Et, tout en disant cela, elle pleurait, et je sentais pleuvoir ses larmes sur mon bras qu'elle tenait entre ses mains. Enfin elle se décida, me fit une petite piqûre avec son aiguille et se mit à pomper le sang qui en coulait. Quoiqu'elle en eût bu à peine quelques gouttes, la crainte de m'épuiser la prenant, elle m'entoura avec soin le bras d'une petite bandelette après avoir frotté la plaie d'un onguent qui la cicatrisa sur le champ. (549)

This passage contains various components which contribute towards increasing vivid visualisation; it is filled with descriptive emotion-evoking text (Clarimonde pricking the narrator's arm and drinking his blood), literal emotion-evoking text (Clarimonde's feelings), and kinaesthetic imagery. However, I would argue that haptic imagery is particularly valuable to this ambiguously supernatural incident compared to the other sensations as the narrator is described to have his eyes closed, feigning unconsciousness. The haptic perceptual strength rating at Point 37 rises to match that of the initial revelation of Clarimonde being a vampire at Point 35. However, I would argue that there is notably more focus on haptic imagery in this passage which heightens its vividness for the reader. The whole passage continually describes tactile contact between Clarimonde, who is by this point suggested to be a vampire, and Romuald. There is little question of weightedness and solidity here; by this late point in the story, the reader is aware that Clarimonde's movements reflect that of a human. It could be argued that this awareness contributes to the increase in the reader's vividness through descriptive emotion-evoking writing here and during the initial revelation of her being a vampire at Segment 35 as the contrast between her humanlike behaviour and her vampiric nature is thus more striking.

This passage is filled with haptic imagery that is likely to be uncomfortable for the reader to engage with. The description of Clarimonde intentionally pricking Romuald's arm with a needle, as well as the use of painful haptic imagery with 'piquer cette jolie veine bleue', is unpleasant and uses descriptive emotion-evoking writing, thus likely heightening vividness. There is also an interesting contrast in the different sensations described on Romuald's arm in this passage. The sharp needle is mentioned at the very beginning of the passage; the reader is likely to already be able to predict Clarimonde's intentions, and there may be an increase in vividness with increased attention and emotion. Clarimonde states that she does not dare 'piquer cette jolie veine bleue', which nonetheless elicits the haptic image of one's arm being pricked. This haptic image is swiftly followed by Romuald feeling her tears on his arm, a very different, softer image. The passage then ends with her pricking his arm, him feeling 'le sang qui en coulait', and her drinking the blood. There is a significant range of haptic sensations described; the variety in these images and the discomfort they elicit may increase their vivid visualisation.

La Vénus d'Ille

The graph mapping the Lancaster Norms across *La Vénus d'Ille* can be found in the auditory imagery section on Page 202 (Figure 3(m)). The solidity of the statue is a very important factor in *La Vénus d'Ille*, but in a very different way from *Une Heure*. In texts such as *Une Heure*, references to the *fantastique* creature's solidity provide new information about it to the reader, and potentially change their mental image from ghostly to more human. However, the Venus is visualised as a solid but non-human entity from the very beginning. Besides the general perception of solidity deriving from it being identified as a statue, the solidity of the statue is re-established multiple times in the course of the story. Interestingly, most of these cues are also auditory. When the statue's discovery is first described to the narrator, his guide says: 'j'entends bimm… comme s'il avait tapé sur une cloche' (730), which elicits connotations of hardness and hard materials, such as stone, steel, and bronze. The narrator

later hears some boys throw a stone at the Venus from his window: 'Je le vis déployer le bras, lancer quelque chose, et aussitôt un coup sonore retentit sur le bronze' (737), in which 'un coup sonore' once again suggests solidity. The anecdote told by the guide of the effort taken to bring the statue out of the ground ('Avec bien de la peine nous la mettons droite'), as well as the story of the statue falling and breaking one of the worker's legs (731), establish its significant weight. These repeated text and subsequently mental images of vivid solidity are therefore part of the *ordinary* world in *La Vénus d'Ille*, and the statue's alleged movement despite its solidity is what breaks the rules of this world, making the story *fantastique*. Unlike in the other texts, where solidity and weightedness uncannily humanise the *fantastique* trigger, in *La Vénus d'Ille*, the reader's base assumptions of solidity and weightedness of the statue are then challenged with its apparently human movement during the *fantastique* incident.

The value of the auditory in the *fantastique* incident in *La Vénus d'Ille* has been discussed in the auditory section of this chapter (201). However, another valuable account of the ambiguously supernatural incident centred on the haptic is also presented in the text through Alphonse's wife. This passage encourages the reader for the most part to focus on the haptic image of the statue found at Point 74 on the graph (Figure 3(m) on 202).

> Elle était couchée, dit-elle, depuis quelques minutes, les rideaux tirés, lorsque la porte de sa chambre s'ouvrit, et quelqu'un entra. Alors Mine Alphonse était dans la ruelle du lit, la figure tournée vers la muraille. Elle ne lit pas un mouvement, persuadée que c'était son mari. Au bout d'un instant, le lit cria comme s'il était chargé d'un poids énorme. Elle eut grand peur, mais n'osa pas tourner la tête. Cinq minutes, dix minutes peut-être… elle ne peut se rendre compte du temps, se passèrent de la sorte. Puis elle lit un mouvement involontaire, ou bien la personne qui était dans le lit en fit un, et elle sentit le contact de quelque chose de froid comme la glace, ce sont ses expressions. Elle s'enfonça dans la ruelle, tremblant de tous ses membres. Peu après, la porte s'ouvrit une seconde fois, et quelqu'un entra, qui dit : Bonsoir, ma petite femme. Bientôt après on tira les rideaux. Elle entendit un cri étouffé. La personne qui était dans le lit, à côté

> d'elle, se leva sur son séant et parut étendre les bras en avant. Elle tourna la tête alors… et vit, ditelle, son mari à genoux auprès du lit, la tête à la hauteur de l'oreiller, entre les bras d'une espèce de géant verdâtre qui l'étreignait avec force. (755)

The haptic moment occurs at Point 34 of the graph. There is a small spike at this point in the haptic perceptual strength, but it is not the most haptically perceptually strong moment. The most haptically perceptually strong moment is suggested to occur following the *fantastique* incident when Alphonse's corpse is discovered; the passage contains a detailed description of his body. In the above passage however, given how little information the reader is offered in this text about the incident, the haptic text cues of weightedness and coldness stand out, heightening vividness for the reader. The repeated mention of the 'poids énorme' of the statue creates an association with the narrator's auditory description of the weighted presence on the stairs. Similar to the passage discussed for *La Morte Amoureuse*, this passage serves to encourage possible supernatural explanations for the *fantastique* incident; it is therefore likely read with anticipation and slightly increased attention, increasing vividness.

I have attempted to illustrate moments of haptic importance in relation to the *fantastique* texts in my chosen corpus. These three passages have some significant haptic text cues which are likely to heighten the reader's emotional response and feed into the increased vividness of visualisation. An interesting and unexpected commonality to note in these three passages described in the haptic section is that of the character's eyes being closed. In *Une Heure ou La Vision*, the narrator claims to have lost consciousness before the haptic interaction with Octavie begins. In *La Morte Amoureuse*, Romuald is feigning sleep while Clarimonde pricks his arm to drink his blood. In *La Vénus d'Ille*, the wife 'n'osa pas tourner la tête' (755), she only feels the weight and coldness of the statue next to her. This textual commonality contributes towards the emphasis on haptic imagery in these passages over the visual. However, as the Lancaster Norms graphs indicate, it is likely very difficult to separate visual and haptic perceptual strength, and subsequently vividness in visual and haptic imagery. Additionally, in all three texts, the reader is offered text descriptions of what the ambiguously supernatural source looks like

preceding this haptic encounter. Nonetheless, I would thus argue that the emphasis on haptic imagery in these passages contributes towards increasing the reader's vividness of visualisation when reading them.

Conclusion

This chapter discusses the role played by non-visual senses in *fantastique* writing. The focus of the chapter was the role played by auditory imagery in the *fantastique*. My discussion of auditory imagery in the genre had two distinct parts: dialogue and noise. Though not always reflected in the Lancaster Norms, I attempted to illustrate why the auditory imagery should contribute towards heightening vividness of visualisation for the *fantastique* moment in *Inès de Las Sierras*, *La Vision de Charles XI*, and *La Vénus d'Ille* during the ambiguously supernatural incident. Amplification of sound and emotion-evoking writing, particularly caused by the reader's context awareness using earlier events in the narrative, was suggested to be a frequently occurring cause for heightened vividness.

I ended this chapter with a brief look at the haptic modality. It is difficult to assess how it may influence vividness independently, largely because of the little research conducted on how haptic imagery functions. I nonetheless argued that possibly haptic factors such as solidity and weightedness contribute towards making a reader's visualisation more vivid. The Lancaster Norms graphs also repeatedly revealed a significantly positive correlation between haptic and visual perceptual strength. I would argue that perhaps haptic imagery almost always occurs with visual imagery, and the two overlap to such an extent that it is impossible to separate their impact. However, text descriptions with emphasis on haptic imagery is likely to heighten the reader's vividness of visualisation when reading the *fantastique*, as illustrated for *Une Heure ou La Vision*, *La Morte Amoureuse*, and *La Vénus d'Ille*, as they draw attention to the inexplicable and often-threatening nature of the ambiguously supernatural creature.

This chapter argued for auditory and haptic imagery feeding into vivid visualisation for the reader. I would further argue that auditory and haptic imagery referring to the *fantastique* presence often feed specifically into descriptive emotion-evoking writing to heighten vividness. As mentioned in this chapter, both these elements of multimodal imagery can also be used to humanize the ambiguously supernatural presence in texts such as *Inès de Las Sierras* and *La Morte Amoureuse* when the segment is longer. However, when auditory imagery is used to describe the moment when the rules of the assumed ordinary storyworld are broken, e.g. the footsteps in *La Vénus d'Ille* or Inès crying out 'me voilà !' (Nodier 27), it is likely to increase vivid visualization by feeding into the emotion-evoking description. For the haptic, similarly, when a creature initially described as weightless with a word like 'fantôme' (27) is then described with weightedness in a text with fear-related emotion-evoking writing, it implies a threat for the protagonist which could increase the reader's vivid visualization.

Another important question worth considering further before concluding this chapter is whether the absence of auditory or haptic imagery might decrease a reader's vividness of visualisation. My thesis argues for inconsistent vividness of visualisation when reading the *fantastique*; drops in vividness are a key aspect of the same. As with the visual modality in the previous chapter, it is difficult to assess if and how auditory or haptic imagery might decrease vividness. Given the natural variances in auditory and haptic perceptual strength across any text, it is likely that a reader's auditory and haptic imagery naturally fades away when there are no textual cues given for the same. I would argue that their fading away would however not necessarily cause a drop in vivid visualisation. The previous chapter established four factors which increase vivid visualisation: visual perceptual strength, emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery. The presence of these four factors regardless of auditory and haptic imagery should heighten vividness. The absence of auditory and haptic imagery thus likely does not reduce vivid visualisation. However, when nonvisual imagery in introduced into a text, it contributes towards increasing vivid visualisation.

All the sensory modalities work together to create a vivid mental image for the reader, and this chapter has illustrated that auditory and haptic cues can contribute towards increasing the vividness of a reader's visualisation during the ambiguously supernatural incident. The fourth chapter of the thesis will now outline the method used for the experiment and discuss the results obtained.

Chapter 3 Appendix

X-axis labels for La Vénus d'Ille graph

Number on Graph	Event in story paragraphs
1	Meets guide, hears about wedding
2	Hears about Venus discovery
3	Story about Venus breaking leg-her "evil nature"
4	Meeting the Peyrehorade family, dinner
5	Alphonse's appearance
6	Narrator and M.P talk about monuments in the Ile and the wedding
7	Narrator and M.P talk about seeing the Venus the next day
8	Debate between M.P and wife about "value" of Venus (good/evil?)
9	End of supper, M.P apologising for provincial hosting, narrator goes to bedroom
10	Getting ready for bed, seeing statue from balcony
11	Boys throwing stone at statue incident
12	Waking up, seeing the Venus with M.P in the garden
13	The striking nature of the Venus's face-contracted features
14	MP and narrator admiring statue, emphasising Venus's eyes
15	Discussing meaning of inscription
16	Discussing other inscription on arm
17	More discussion of inscription origin
18	More analysis of the statue+history
19	Noticing vandalism, breakfast,looking at stables
20	M Alphonse shows ring to narrator
21	Meeting bride, narrator mentally compares her to Venus
22	Wedding arranged for Friday
23	Wedding planned, narrator trying to sketch Venus on the day
24	Tennis game, Alphonse puts ring on Venus
25	Spanish man insulted, Alphonse forgets ring on Venus
26	Wedding happens, emotional family separaton for bride
27	Supper, drunk M.P compares Venus to bride, M Alphonse scared
28	M.Alphonse believes he cannot get ring off Venus
29	Narrator suspicious, thinks of checking, but finally does not, goes to bed
30	Night: Narrator hears heavy creaking on stairs, and again at dawn, then eventually hears people distressed
31	Alphonse found to be dead, corpse description
32	Narrator inspects clues around house
33	Narrator begins talking to *procureur de roi* about suspicions
34	Widow's account of the Venus coming and killing Alphonse
35	Interrogation of the Spaniard, found to be innocent
36	Narrator asks servant about ring, leaves
37	Death of M.P a few months later, statue melted into bell, vines frozen in town

X-axis labels for Une Heure ou La Vision graph

Number on Graph	Event in story paragraphs
2	Seeing figure again, graveyard description
3	Meeting the man, description of his despair
4	Octavie meeting man two days before her wedding
5	Octavie's death
6	One year later, the anniversary of Octavie's death
7	Seeing Octavie again, interacting with her
8	Man falls ill, convinced that he will die and be with her
9	Man dies on the second anniversary of her death

Chapter 4

The Experiment: Design, Hypotheses, and Results

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Introduction

Cognitive literary approaches to literary analyses often go beyond a purely hypothetical analysis of a text. Some scholars (Bolens 2013, Kuzmicova 2013, Zunshine 2014, Brosch 2018) have created hypotheses regarding how a reader might mentally process a text by blending their understanding of fiction with empirical research in cognitive psychology, others (Tracy et al 1988, Yao et al 2011, Carney and Troscianko 2021) have conducted their own experiments to investigate their hypotheses about how fiction is mentally processed by a reader. In the last two chapters, this thesis has assessed likely points of heightened vivid visualisation in six *fantastique* texts. Chapter 2 established that high perceptual strength, emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery can all contribute towards creating a vivid visual mental image. One or more of these characteristics was found to be used during the ambiguously supernatural incident in the *fantastique* texts chosen for this corpus; they are also likely to feature in other *fantastique* texts. Chapter 3 considered how auditory and haptic imagery both are likely to heighten a reader's vividness of visualisation when reading the *fantastique* particularly during the key segment containing the ambiguously supernatural incident.

The main hypothesis being explored in this thesis is that the participants' range of vivid visualisation should be larger when reading a *fantastique* text rather than a non- *fantastique* text (Hypothesis 1), because of the ambiguously supernatural intrusion in the former, caused by a notable spike during the ambiguously supernatural incident (Hypothesis 2), and a notable drop immediately after (Hypothesis 3). In addition to the three primary hypotheses mentioned above, nine other hypotheses were also established in relation to the reader's mental processes when reading the *fantastique*. These were as follows.

Number	Category	Hypothesis
1	Main Text Reading	The range of vividness in the experimental group will be higher than that in the control group.
2		A spike in vividness will be reported at the key segment containing the ambiguously supernatural incident in the experimental group and the modified non-supernatural segment in the control group.
3		There will a drop in reported vividness right after the key segment.
4		More fluctuation in vividness in the experimental than the control group.
5	Re-reading	Higher average vividness when reading main text for re-readers.
6	Open Response	Differences in words used in the experimental and control groups (full table to be found on 252)
7	Genre Preferences	Those who like reading the fantastique should have higher vividness ratings when reading the main text.
8		Those who report reading more books should have a higher average vividness of visualisation.
9	Baseline VVIQ	Strong positive correlation between participants' main text ratings and their VVIQ ratings.
10	OSIVQ	OSIVQ object ratings should be positively correlated to the VVIQ ratings
11	Ambiguity Tolerance Test	Positive correlation between heightened vividness and ambiguity intolerance during fantastique moment.
12		Those with less ambiguity intolerance will have fewer fluctuations in vividness ratings.

Figure 4(a)

All of the above hypotheses will be discussed in this chapter. The final two chapters will describe the method and results of a reading experiment conducted using Guy de Maupassant's *Lui ?* and *Apparition* (1883) to investigate whether and how a reader may visualise a *fantastique* text differently from non-*fantastique* text.

For the experiment, participants were asked to read the original or control version of one of the two texts while rating their vividness of visualisation after every two or three paragraphs using Marks' VVIQ (1973), and answer four questionnaires afterwards. The experimental group were given the original text, while the control group text was altered. The experiment comprised of five distinct parts: the main text reading (either the experimental or control version) with VVIQ ratings[25], a section on genre and reading preferences, the baseline VVIQ test (Marks 1973), an OSIVQ test (Blanzhecova 2009), and a Tolerance of Ambiguity test (McCain 2009). The reasoning behind this experiment design as well as the key choice of the two *fantastique* texts will be unpacked in the first section of this chapter, 'Experiment Design'. The hypotheses relating to the different sub-parts of the experiment will also be presented here. The final section will then detail the results from the various segments in relation to the hypotheses and consider potential limitations in the experiment design. I will not be including a discussion of the results in relation to the theoretical implications made in Chapters 2 and 3 here as the final chapter of the thesis will unpack the results more completely in relation to the Maupassant texts and consider possible implications for other *contes fantastiques*. The purpose of this chapter is solely to explain the experiment design, the associated hypotheses, and describe the results.

Overview of Existing Research

There is no current research which considers a reader's visualisation in relation to *fantastique* fiction. More broadly, there is almost no research on the *fantastique* in relation to cognitive literary theory. The closest is Karin Kukkonen's chapter, 'Fantastic Cognition' in *Cognitive Literary Science* (2017) which considers how Todorov's theory of the *fantastique* can be applied to 'the ways in which our mind calibrates the probabilities of the real world in Bayesian inferences' (151). There is substantially more research relating visualisation and reading fiction. A significant amount of this research

[25] Ratings on a scale of 1-5 based on Marks' VVIQ (1973). 1 is the lowest possible rating, described as 'No image at all, you only "know" that you are thinking of the object', and 5 is the highest, described as 'Perfectly clear and as vivid as normal vision'.

relates to individual differences between readers covered in Chapter 1, e.g. Hayakwa and Keysar's 2018 experiment regarding the influence on vividness of mental imagery when reading in a foreign language, or Mangen et al (2019) who investigated the difference between reading fiction on an e-reader and a print book. There have been some studies which have been more focused on how readers respond to text content. Examples include Sadoski's 1988 experiment and Krasny and Sadoski's 2008 replication, both of which investigated the relationship between vivid visualisation and emotional response in participants when reading short stories, e.g. Saki's *The Window* (1911) and Quentin Reynold's *A Secret for Two* (1940). More recently, Troscianko and Carney (2021) investigated whether narrative perspective influences mental imagery by asking participants who read in either first or third person to draw a scene from a Kafka's *The Castle* (1926). Overall, investigations into how fiction is read to date have largely uncovered the extent to which assumptions about reader response formed in literary analyses can be supported by empirical data. To my knowledge the experiment conducted is the first to investigate the *fantastique* using empirical data from readers' vividness of visualisation ratings. In doing so, it attempted to explore whether a reader's visualisation might function uniquely when reading the *fantastique* as opposed to other genres.

Experiment Design

Design Overview

The experiment was conducted online using JISC[26], a survey platform for higher education institutions in the UK. There were four groups with sixteen participants each, two experimental and two control groups. Participants were randomly assigned to one of the four groups. Those in the experimental groups were asked to read one of two Guy de Maupassant texts, *Lui ?* (1883), or *Apparition* (1883). The texts were divided into segments of around 200 words each. After every segment, the

[26]The experiment questionnaire can be seen in its entirety in the Appendix to Chapter 4.

participant was asked how vividly they visualised the segment they had just read on a scale between one and five, based on Marks' VVIQ scale (1973). Those in the two control groups read an altered version of one of the two texts. The alterations were made to replace the possibly supernatural incident in each text with an incident that fit within the rules of an ordinary world. After reading the text, participants were asked to describe their experience reading the text in an open-ended question. They were then asked whether they had read the text before and whether they re-read any segment in the text, as well as some questions about their genre preferences. The genres they were asked about were science fiction, fairy tales, fantasy, horror, and the *fantastique*. They then completed Marks' VVIQ (1973), the OSIVQ (Blazhenkova 2009), and an ambiguity tolerance test (Mclain 2009). Three rounds of pilot tests were conducted in English with different control texts and a total of 37 participants before the main experiment was conducted in French.

Selection and recruitment of participants

The design of the experiment was between-subjects. A within-subjects design was not desirable in this experiment design as it would mean the same participant reading a very slightly (but significantly) altered story twice in a short time frame and rating their vividness of visualisation for the same. There is not a lot of research yet on the influence of rereading such a similar text twice but I presented some hypotheses for what is likely to occur based on research by Esrock (1998) and Kukkonen (2021) in Chapter 1 (72-75). To summarise, a participant re-reading the same text with a strong memory of the same is likely to relive the emotions from the first reading but have a more accurate visualisation of the events of the text. Additionally, given that the experimental and control texts were identical with the exception of the slight manipulation around descriptions of the key *fantastique* incident (to be discussed on 147-152), a rereading participant would be likely to be confused by the repetition which might affect their visualisation.

There were two main restrictions set on the participant sample. The first was that they had to be aged over eighteen. The second was that all participants had to be native French speakers. It is true that given the simple style of Maupassant's writing, many non-native speakers would be able to understand the text perfectly. However, it was important not to have any possible disruptions non-native speakers could face to their visualisation. As described earlier (59), Hayakwa and Keysar (2018) found that reading in a foreign language reduced vividness of mental imagery across seven sensory modalities (visual, auditory, haptic, etc.). Any minor differences in language ability when reading and rating for vividness of visualisation could unfairly skew the results. It is also impossible to assess the extent to which different non-native speakers would interpret the same sentences, especially if they contained a slightly old-fashioned turn of phrase or word, e.g. 'sequestration' (780) in *Apparition*.

Translating the Experiment

As described above, it was decided that only native French speakers should be used for the experiment. However, this then meant that the VVIQ, OSIVQ, and MSTAT-II had to be translated for the participants. A validated version of the OSIVQ (Bled and Bouvet 2020) was used. An existing translation of the VVIQ by Santarpia et al (2008) was used after being checked by a native speaker. No French translation was found for the MSTAT-II; I translated it myself and received a back-translation from a bilingual native French speaker to preserve the meaning of each criterion.

The experimental and control texts

It was essential to create two conditions in this experiment which distinguished the *fantastique* from the *non-fantastique* to investigate whether readers visualise the two differently. The methodology described earlier in this chapter (230) could have been carried out even with one text; the first pilot tests were run only with Guy de Maupassant's *Lui ?*. However, the three principal hypotheses

(228) are meant to apply to *any fantastique* text, and it was therefore ideal to conduct the experiment with more than one text.

In the introduction (18), I discussed the contrast between the French *fantastique* written in the first and second halves of the nineteenth century as outlined by Gary Cumminskey (1992). Early pilot tests in the experiment attempted to use Théophile Gautier's *La Cafetière* (1831), and Guy de Maupassant's *Lui ?* (1883) for the notable differences in their writing style, ambiguously supernatural incident, and plot. *La Cafetière* contained a long ambiguously supernatural incident with detailed descriptions of both the *fantastique* creature and the narrator's surroundings, while *Lui ?*'s ambiguously supernatural incident was brief and used a barely-described presence. Additionally, in relation to emotion-evoking writing, Gautier almost always uses a beautiful young woman who has a romantic encounter with the narrator before revealing her *fantastique* nature, while Maupassant usually describes his narrators to be scared of the almost-invisible *fantastique* source from the beginning of his stories. The differences in language, physical descriptions of the *fantastique*, and the relationship between the narrator and the ambiguously supernatural creature encouraged an attempt to create an experiment which used both texts. However, a number of issues emerged while creating the control texts which finally led to Maupassant's *Apparition* (1883) replacing *La Cafetière*.

Creating the control texts

Lui ?

Several methods were considered to create a valid and valuable control text. The primary aim was to eliminate the ambiguous nature of the *fantastique* incident. The earliest pilot test run only with *Lui ?* attempted to do so by eliminating the passage with the *fantastique* text entirely. The original story of *Lui ?* describes a young man who lives alone returning home at night to find a friend waiting for him in his armchair. When he reaches out to touch the friend's shoulder, he finds the chair to be

empty. The first control text eliminated the ambiguously supernatural incident to create a story of a young unhappy man who goes out one night and simply returns home.

Two key issues were discovered during the first round of pilot tests. Firstly, feedback from pilot participants suggested the story was not plausible enough; the removal of the fantastique incident caused the text to read as a slightly strange story with no key event. Secondly, the elimination of the *fantastique* incident led to the text changing significantly in terms of word count and words relating to different ideas and emotions. The LIWC (Linguistic Enquiry and Word Count) software was used to assess the differences between the original and every attempted control text in English. The software assessed each text for words relating to 94 different categories (e.g. word count, positive emotions, negative emotions, adverbs, pronouns, words relating to male/female/seeing/hearing/etc). The elimination of the *fantastique* incident reduced the word count and changed most of the values significantly. The high number of changes meant that any differences found in vividness of visualisation between the experimental and control text would be very difficult to attribute to the presence or absence of the ambiguously supernatural incident. For example, in *Lui ?*, the reduced word count when deleting the *fantastique* incident entirely also reduced the number of perceptually strong words, which could in turn reduce vividness of visualisation. Alternative control options such as blending two different Maupassant texts were considered. However, these too, created significant differences between the experimental and control text, causing similar confounds as with eliminating the *fantastique* text altogether.

The initial pilot test feedback encouraged the creation of a control text which did not alter the *fantastique* incident in any way but altered the circumstances under which it occurs. The ambiguously supernatural incident in the experimental text should lack the ambiguity and clearly be based in the ordinary world in the control. Participants should therefore not be asked to visualise something different in the experimental group than in the control group; they should be given instructions to

visualise the same creatures in either supernatural or non-supernatural circumstances, creating a stronger base for comparison.

For the second round of pilot tests, both *La Cafetière* and *Lui ?* were altered to suggest that the key supernatural incident was occurring in a dream rather than in real life. To do so, the text description of the *fantastique* incident was not changed at all, but the text before and after the ambiguous supernatural event was altered to mention that the narrator was asleep and dreaming. Two further changes were made to both control texts: all mentions of the supernatural were removed from the text to avoid the reader making any associations with something unnatural occurring in the ordinary world. Additionally, phrases associated with dreaming, e.g. 'in my dream', were added in multiple times where possible to remind the reader that the event was not occurring in the ordinary world. The changes required in *Lui ?* are outlined here, as well as the LIWC test ratings for some categories. These categories were among those considered to be the most strongly-related to the *fantastique*.

Lui ? original	*Lui ?* control
Alors !... Oui, alors !... Eh bien ! j'ai peur de moi ! j'ai peur de la peur ; **peur des spasmes de mon esprit qui s'affole**, peur de **cette horrible sensation de la terreur incompréhensible**.	Alors !... Oui, alors !... Eh bien ! j'ai peur de mes rêves ! j'ai peur de la peur ; peur des **rêves**, peur de ces horribles **cauchemars** incompréhensibles.
J'errai longtemps ainsi, et vers minuit, je me mis en route pour rentrer chez moi. J'étais fort calme, mais fort las. Mon concierge, qui se couche avant onze heures, m'ouvrit tout de suite, contrairement à son habitude ; et je pensai : « Tiens, un autre locataire vient sans doute de remonter. »	J'errai longtemps ainsi, et vers minuit, je me mis en route pour rentrer chez moi. J'étais fort calme, mais fort las. **Je m'endormis tranquillement aussitôt que j'étais dans mon lit. Puis mon rêve commença**. **Dans le rêve, je me vus dehors, en train de rentrer chez moi de quelque part.** Mon concierge, qui se couche avant onze heures, m'ouvrit tout de suite, contrairement à son habitude ; et je pensai : « Tiens, un autre locataire vient sans doute de remonter. »

Oui, mais j'ai beau me raisonner, me roi-dir, je ne peux plus rester seul chez moi, **parce qu'il y est. Je ne le verrai plus, je le sais,** il ne se montrera plus, c'est fini cela. Mais il y est tout de même, dans ma pensée.	Oui, mais j'ai beau me raisonner, me roi-dir, je ne peux plus rester seul chez moi, **parce que je sais que je rêverai de lui. Je ne le verrai jamais dans la vie réelle, je le sais.** Mais il y est tout de même, dans ma pensée.

Figure 4(b)

Lui Experimental (English)	**Lui Dream Control (English)**
Word Count: 2857 **Negative Emotions:** 3.64% **Perception:** 4.17% **Anxiety:** 1.79% **Body:** 1.12% **See:** 2.03%	**Word Count:** 2863 **Negative Emotions:** 3.67% **Perception:** 3.91% **Anxiety:** 1.68% **Body:** 1.50% **See:** 1.92%

Figure 4(c)

It is evident that there are very few differences between the experimental and control text here. The only slight unavoidable difference can be seen in the body category, as words such as 'esprit', 'spasme', 'sensation', and 'cerveau' had to be deleted in an attempt to reduce the ambiguity of the control text.

Pilot tests and further change

The pilot tests revealed that describing a dream rather than a real-life supernatural incident was not always effective. The control text seemed to more effectively establish the distinction in *Lui ?*, as evident from the participants' comments in the control group, e.g. 'I think it was quite an intriguing read! How the narrator builds up the premise of this "person" *in his dream* keeps the reader engaged and interested to know more.'[27] However, in *La Cafetière*, the distinction between the experimental and control group did not seem clear to the participants. No references were made to the narrator dreaming in the open responses and when asked what the text was about afterwards, many in the pilot control group failed to recall that the narrator was meant to have been dreaming and were confused even when directly asked whether the narrator was dreaming or not. An exchange with a participant in the control group a week after they completed the experiment was as follows:

> What do you remember about the story you read?
>
> Spooky ghost portraits, something about teapots and cutlery
>
> Do you remember if it was a dream?
>
> I think it might have been, I can't recall. I feel more like it was than it wasn't, but I can't bring any specifics to mind.

The confusion as suggested above could have arisen from the fact that in the original story, the *fantastique* incident in *La Cafetière* begins with the narrator lying in bed trying to sleep when he sees the portraits begin to come to life. In an effort to not change the ambiguously supernatural incident but rather the ambiguity surrounding it, it is possible that the change from being in bed to dreaming made was too minimal for the participants to be sure that the narrator in the control text was dreaming. This feedback led to changing the second experiment texts from Gautier's *La Cafetière* to Guy de Maupassant's *Apparition*.

[27] My Italics

Apparition

Written in the same year as *Lui ?* (1883), *Apparition* is another *conte fantastique* by Guy de Maupassant. It tells the story of a man who is haunted by an incident which occurred over fifty years earlier: he encountered an old friend who told him that his wife had passed away, and requested him to fetch some letters from the home they shared. When searching for the letters there the next day, the man is confronted by a tall woman in white who asks him to comb her hair. He does so, and she then leaves never to be seen again. The man's friend disappears the next day as well.

Maupassant's texts are an optimal fit for the nature of the experiment. Given that participants have to rate their vividness of visualisation after every few paragraphs, a short *conte fantastique* was required rather than a *nouvelle* (15-16): this therefore eliminated many *fantastique* texts including some in my corpus such as Gautier's *La Morte Amoureuse* (1836) and Merimée's *La Vénus d'Ille* (1837). As discussed earlier, issues were found during the pilot tests when trying to use Gautier's *La Cafetière* as enough of a distinction could not be created between the experimental and control group texts without significantly altering the latter. *Apparition* was thus chosen, firstly, for its length and also for its potential to create a control text with minimal changes.

Given that both chosen texts were thus by the same writer, it was important to ensure that they were not too similar with regards to the nature of the *fantastique* incident. Though they are both *contes fantastiques* from 1883**,** *Apparition* and *Lui ?* differ significantly when describing the ambiguously supernatural incident. Similar to *Le Horla* (1887), the *fantastique* source is barely visible in *Lui ?*. The *fantastique* encounter lasts for a very brief moment; the man is seen by the narrator, 'un de ses bras pendant à droite ; ses pieds étaient croisés l'un sur l'autre ; sa tête, penchée un peu sur le côté gauche du fauteuil, indiquait bien le sommeil' (Maupassant 873). Right after this description, the narrator reaches out to touch him, and finds the empty seat. No further description is ever provided for the man, and the *fantastique* incident is never extended beyond this brief moment; the narrator repeatedly re-describes this singular incident in his fear of re-experiencing it. In relation to their mental

imagery, the reader is therefore given very limited text description to visualise the *fantastique* incident. *Apparition* does not mimic the common text features of an early nineteenth-century text; it differs significantly from works such as those of Nodier and Gautier in its short length and the simple language used, as opposed to the usually more descriptive works written earlier. However, it contains a significant number of notable contrasts to *Lui ?* in terms of perceptually strong references and the nature of the ambiguously supernatural incident. The source of the ambiguously supernatural incident is 'une grande femme vêtue de blanc' (784). She asks the narrator to comb her hair, and he complies. This text therefore provides the reader with more text instruction to visualise the trigger for the ambiguously supernatural incident than in *Lui ?*. It also contains auditory and haptic instruction which is completely absent from *Lui ?*. While the current experiment focuses only on the vividness of visual imagery, the multimodal nature of mental imagery (Starr 2014) discussed in the previous chapter suggests that text instruction for the other senses would also affect visual imagery. These two texts are therefore likely to encourage different kinds of visual imagery for the source of the *fantastique*. The differences described above between *Lui ?* and *Apparition* as well as its short length encouraged the selection of the latter as the second text for the experiment.

Some further challenges were met when creating a control text for *Apparition*. Unlike in *Lui ?* and *La Cafetière*, it seemed unrealistic to place the entire scenario of *Apparition* in a dream given the supernatural incident occurred because of the narrator meeting his friend at the beginning of the story and learning about his deceased wife. As there was more than one non-*fantastique* speaking character interacting directly with the protagonist in *Apparition*, it was therefore less plausible to place the entire ambiguously supernatural scenario in a dream. An initial set of pilot tests attempted to describe the wife as missing rather than deceased, but it was thought to be too ambiguous as she is not explicitly stated to be living before she appears in the key moment. A new control was therefore created which described the woman to be living, mentally ill, and contained in the house rather than deceased or missing. This seemed to create the desired distinction between the ambiguity of the original story

and the sad but ordinary narrative of the new story. Changes required were still minimal; the next page contains three examples as well as the LIWC tests for the two versions.

Apparition original	Apparition control
Oui, j'ai subi l'horrible épouvante, pendant dix minutes, d'une telle façon que depuis cette heure une sorte de terreur constante m'est restée dans l'âme.	Oui, j'ai **vécu des événements si étranges** que depuis cette heure une sorte de **question** constante m'est restée dans l'âme.
Devenu follement amoureux d'une jeune fille, il l'avait épousée dans une sorte d'extase de bonheur. Après un an d'une félicité surhumaine et d'une passion inapaisée, elle était morte subitement d'une maladie de cœur, tuée par l'amour lui-même, sans doute.	Devenu follement amoureux d'une jeune fille, il l'avait épousée dans une sorte d'extase de bonheur. Après un an d'une félicité surhumaine et d'une passion inapaisée**, elle est devenue folle d'une maladie d'esprit**, sans doute ; **il est devenu impossible de vivre avec elle**.
Oh ! personne ne peut comprendre, à moins de les avoir ressenties, ces épouvantables et stupides terreurs. L'âme se fond ; on ne sent plus son cœur ; le corps entier devient mou comme une éponge, on dirait que tout l'intérieur de nous s'écroule.	Oh ! personne ne peut comprendre, à moins de les avoir ressentis, ces épouvantable **chocs**. L'âme se fond ; on ne sent plus son cœur ; le corps entier devient mou comme une éponge, on dirait que tout l'intérieur de nous s'écroule.

Figure 4(d)

Apparition Experimental	Apparition Control
Word Count: 2575 Negative Emotions: 3.30% Perception: 4% Anxiety: 1.36% Body: 1.32% See: 1.55%	Word Count: 2368 Negative Emotions: 2.90% Perception: 4.08% Anxiety: 0.88% Body: 1.35% See: 1.68%

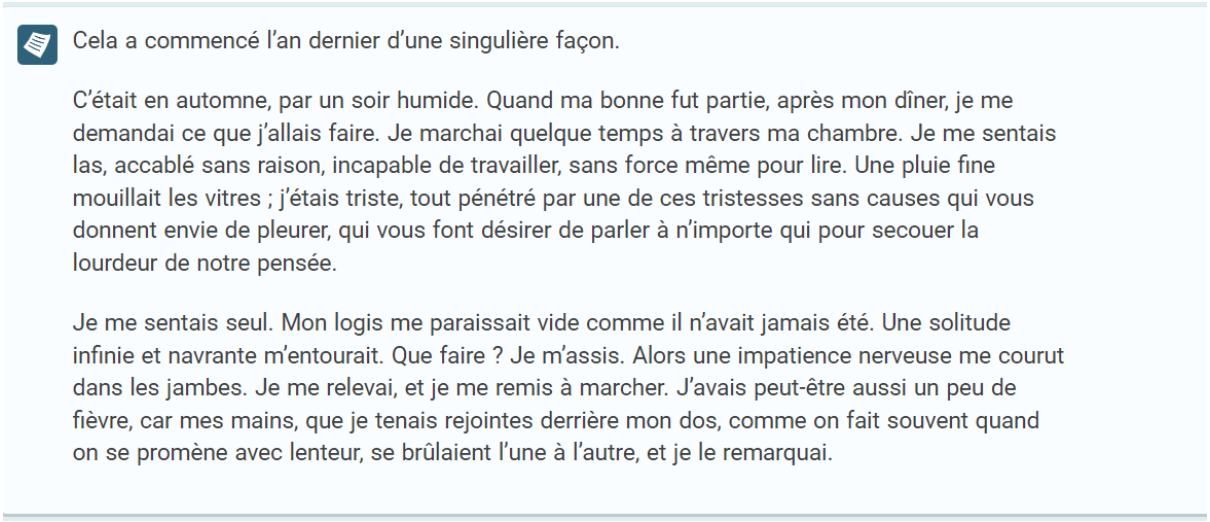
Figure 4(e)

Similar to *Lui ?*, there is very little difference in the two LIWC tables in Figure 4(e). Through these methods, Guy de Maupassant's *Lui ?* and *Apparition* were selected as the two *fantastique* texts to be used to test out the hypotheses.

Segmentation Method

It was important to establish a method which allowed me to test the vividness of each participant's visualisation at regular intervals. For this, each chosen text was divided into segments; the participant would be requested to rate their vividness of visualisation after reading each segment. In doing so, I would be able to track how the vividness of visualisation rises and falls as the participant reads. Similar methods have been used earlier, notably by Sadoski (1988), Krasny and Sadoski (2008), and Troscianko (2013). A key question to consider was the length of each segment. The idea of dividing the texts based on page divisions in the Pléiade editions was considered but soon rejected as each segment would contain a lot of information, making it more difficult to pinpoint exactly which elements contribute to heightening or reducing vividness. Finally, divisions were created broadly based on where a new event begins in the plot. A "new event" refers to a point in the plot where the narrator begins a new action, often involving him physically moving from one place to the next. For example, in *Lui ?*, the first segment describes the narrator in his room, while the second focuses on him leaving

the house. In *Apparition* similarly, one segment focused on the narrator meeting his friend for the first time, while the next focused on them meeting the following day. The segments were kept as even as possible at around roughly one to three hundred words. The priority nonetheless was to divide the segments based on when a new event begins rather than by an exact number of words. In both *Apparition* and *Lui*, one and two segments respectively at the beginning of each text were read by participants with no prompt to mark their vividness, as they lacked any perceptually strong words or particular events and focused on providing context for the story. If included, it would have been possible for participants to rate them low for vividness for these reasons, which could in turn create an unfairly large range of vivid visualisation not attributable to the *fantastique* writing style. There were eleven segments created for *Lui ?* and thirteen for *Apparition* (not including the first segments which did not require a rating). An example from *Lui ?* in the experimental group was as follows.



Cela a commencé l'an dernier d'une singulière façon.

C'était en automne, par un soir humide. Quand ma bonne fut partie, après mon dîner, je me demandai ce que j'allais faire. Je marchai quelque temps à travers ma chambre. Je me sentais las, accablé sans raison, incapable de travailler, sans force même pour lire. Une pluie fine mouillait les vitres ; j'étais triste, tout pénétré par une de ces tristesses sans causes qui vous donnent envie de pleurer, qui vous font désirer de parler à n'importe qui pour secouer la lourdeur de notre pensée.

Je me sentais seul. Mon logis me paraissait vide comme il n'avait jamais été. Une solitude infinie et navrante m'entourait. Que faire ? Je m'assis. Alors une impatience nerveuse me courut dans les jambes. Je me relevai, et je me remis à marcher. J'avais peut-être aussi un peu de fièvre, car mes mains, que je tenais rejointes derrière mon dos, comme on fait souvent quand on se promène avec lenteur, se brûlaient l'une à l'autre, et je le remarquai.

Figure 4(f)

APPENDIX

Items contained in the Vividness of Visual Imagery Questionnaire

For items 1–4, think of some relative or friend whom you frequently see (but who is not with you at present) and consider carefully the picture that comes before your mind's eye.

Item

1. The exact contour of face, head, shoulders and body.
2. Characteristic poses of head, attitudes of body, etc.
3. The precise carriage, length of step, etc., in walking.
4. The different colours worn in some familiar clothes.

Visualize a rising sun. Consider carefully the picture that comes before your mind's eye.

Item

5. The sun is rising above the horizon into a hazy sky.
6. The sky clears and surrounds the sun with blueness.
7. Clouds. A storm blows up, with flashes of lightning.
8. A rainbow appears.

Think of the front of a shop which you often go to. Consider the picture that comes before your mind's eye.

Item

9. The overall appearance of the shop from the opposite side of the road.
10. A window display including colours, shapes and details of individual items for sale.
11. You are near the entrance. The colour, shape and details of the door.
12. You enter the shop and go to the counter. The counter assistant serves you. Money changes hands.

Finally, think of a country scene which involves trees, mountains and a lake. Consider the picture that comes before your mind's eye.

Item

13. The contours of the landscape.
14. The colour and shape of the trees.
15. The colour and shape of the lake.
16. A strong wind blows on the trees and on the lake causing waves.

Figure 4(g) (Marks 24)

As mentioned in the introduction (14), the term 'vividness' is characterised by the extent to which a reader's visualisation is close to real-life perception, and the clarity with which they visualise. A valid measure was required to assess the vividness of visualisation for this experiment. The most

frequently-used method to assess vividness of visualisation to date is Marks' VVIQ (1973). The VVIQ is a 16-item list as seen in Figure 4(g).

Participants are usually asked to rate each item on the list in 4(g) for vividness between one and five to get an assessment of how vivid their visualisation is. The definition for each number is as follows.

Rating	Description
1	'Perfectly clear and as vivid as normal vision'
2	'Clear and reasonably vivid'
3	'Moderately clear and vivid'
4	'Vague and dim'
5	'No image at all, you only "know" that you are thinking of the object'

Figure 4(h) (Marks 18)

As seen above, Marks' initial scale asked participants to use lower numbers for higher ratings. However, many researchers who incorporated the VVIQ into their work (Huang et al 2000, Campos 2014, Dusart 2022) as well as interactive websites which allow you to take the VVIQ (e.g. Aphantasia Network) have inversed the scale (commonly referred to as the VVIQ-2) to avoid confusion from participants; the higher numbers correspond to higher vividness. The same was done for this experiment.

The justification for choosing the VVIQ over other similar scales (QMI (Betts 1909), Spontaneous Use of Imagery Scale (Kosslyn et al 2003), Tellegen Absorption Scale (Tellegen 1982), Verbaliser Visualiser Questionnaire (Richardson 1977), etc) is primarily its widespread use. To date, the VVIQ has been used in over 1200 studies. Since 2021 alone, the VVIQ has been referenced in around 144 studies, while the more recent SUIS (2003) has been used in around 32. Examples include studies related to vividness and mental function, e.g. Tabi et al's 'Vividness of visual imagery questionnaire scores and their relationship to visual short-term memory performance' (2022) as well as studies more closely related to reading, e.g. Alba et al's 'Mental Imagery in Reflection Papers on Poetry Manifested by

Students with Aphantasia' (2022). A second justification for choosing the VVIQ is the questionnaire content. Though other self-assessment tests of vividness such as the QMI and the SUIS have very similar layouts, they often lack the focus on vividness alone. The SUIS (2003) for example, which comprises of a 12-item list similar to Marks' with items such as 'When I think about visiting a relative, I almost always have a clear mental picture of him or her" (Pearson 14) was designed "to measure spontaneous use of imagery during daily life". To compare, the original purpose of the VVIQ was to assess whether participants were "poor" or "good" visualisers (Marks 18). Though it was originally intended to be used as a trait measure, the VVIQ rating scale is a good fit to assess the participants' varying vividness when reading segments of the fictional text because of the clear distinctions it draws from one number to the next (Figure 4(h)). Additionally, some of the prompts in the VVIQ, though only one line each, resemble lines and textual instructions readers may come across in works of fiction, e.g. 'The sun is rising above the horizon into a hazy sky' (Item 5 on Figure 4(g)).

The structure of the test combined with its frequent use in various kinds of studies to assess vividness therefore encouraged me to incorporate the original VVIQ rating scale into my main experiment to assess how vividly participants believed they were visualising when reading the *fantastique* (experimental) or non-*fantastique* (control) texts. Other texts exploring reader's mental processes and fiction (e.g. Troscianko 2013) have similarly used the VVIQ in their experiment designs to assess the vividness with which readers visualised when reading short texts.

It is worth noting that the VVIQ is used twice in my experiment. As mentioned in the previous paragraph, the scale and the descriptions corresponding to numbers 1 to 5 seen in Image 2 was used

to get participant ratings for vividness as they read the main *fantastique* or non-*fantastique* text. An example is seen here.

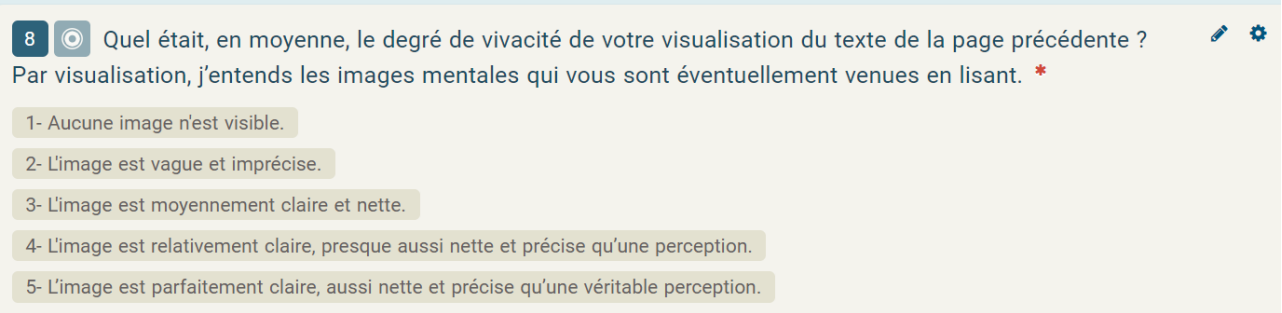


Figure 4(i)

Following the main part of the experiment, the participant is also asked to complete the VVIQ (Marks 1973) in its entirety to assess their baseline visualising ability for comparison to their main text ratings. As stated in Chapter 1 (51) an individual's ability to visualise text content in fiction depends on their baseline ability to visualise; those with aphantasia for example, are likely to be unable to visualise when reading fiction regardless of how perceptually strong and emotion-evoking the text-content is.

Hypotheses

Main text vividness hypotheses

Three principal hypotheses were created regarding the vividness of visualisation in the experimental versus the control group. As mentioned in the introduction, these are being considered as the principal hypotheses as they focus on the possible key difference in vivid visualisation when reading the *fantastique* versus the non-*fantastique*. The other hypotheses, on the other hand, relate to individual factors which may affect the readers' visualisation when reading the main text. The hypothesis which has been mentioned several times is that the range of vivid visualisation in the experimental group should be larger than that of the control group (Hypothesis 1); this is being argued to occur through a spike in vividness when the ambiguously supernatural incident in introduced (Hypothesis 2), and a drop following its introduction (Hypothesis 3). The reasoning for Hypothesis 2 was based on the suggested feedback loop between heightened emotion and vividness (Sadoski 1988, Krasny and Sadoski 2008). The following graph demonstrates the relationship between vividness and emotional response to the story 'A Secret for Two' in Krasny and Sadoski's experiment.

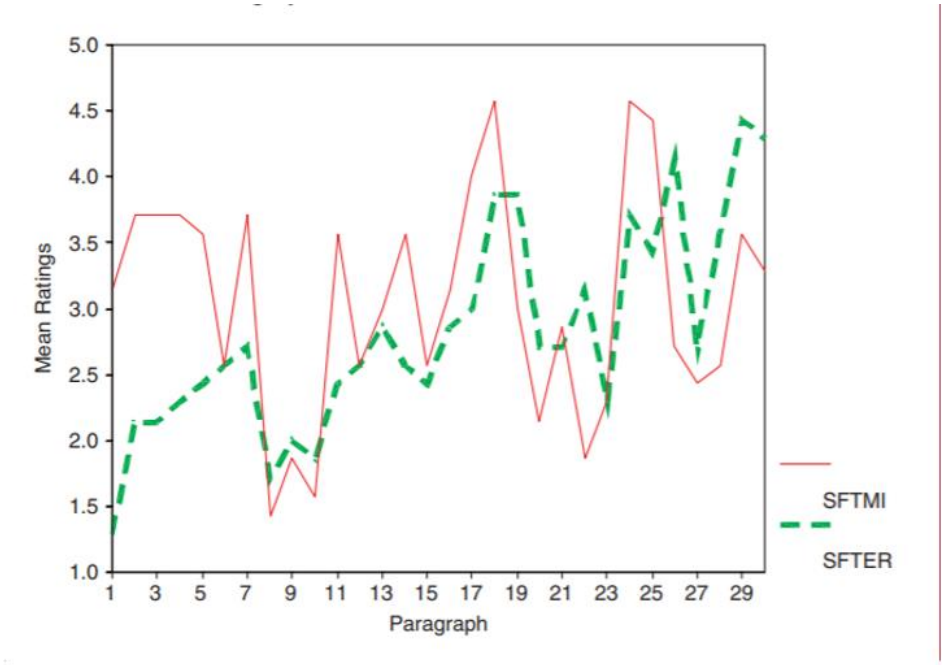


Figure 4(j): Krasny and Sadoski (408)

Figure 4(j) suggests a positive correlation at most points between emotional response (the green dashes) and VVIQ ratings (the red line). The points of vivid mental imagery were therefore also points of high emotional significance. For example, Paragraph 19 described the protagonist learning that his beloved horse had died. The emotion-evoking writing was thus positively correlated to the higher VVIQ ratings. It was therefore hypothesised that participants reading both the experimental and control texts would have particularly vivid visualisation at the key moment which usually contains descriptive emotion-evoking writing; an ambiguously supernatural interruption for the experimental group, and a strange but ordinary-storyworld-based incident for the control group. It was additionally thought that those in the experimental group would have more of a spike at the key moment because they would be more struck by the introduction of the ambiguously supernatural incident. This was thought to be the case as in the original text, the ambiguously supernatural incident interrupts what was likely assumed to be the ordinary storyworld by the reader.

Hypothesis 2 suggests the reader's vividness of visualisation should spike when the ambiguously supernatural incident is introduced. A connected hypothesis, Hypothesis 3, was made regarding a notable drop in vividness for the segment following the introduction of the ambiguously supernatural incident. The fleeting nature of visual imagery has already been mentioned in the introduction (12). It is further suggested by Figure 4(j) from Krasny and Sadoski; there is a lot of rapid fluctuation in a reader's vividness of visualisation across their reading of 'A Secret for Two'. Though the justification for these drops in vividness is yet to be explored in empirical research, it may occur following the ambiguously supernatural incident because of the reader's cognitive effort to reconcile the ambiguously supernatural incident with the earlier-assumed ordinary nature of the storyworld. The introduction drew a distinction between two kinds of ambiguously supernatural incidents (42). Hypotheses 1, 2, and 3, are being argued to apply to both kinds. The ambiguously supernatural incident is similarly introduced in both cases. However, the ambiguously supernatural incident can be brief (e.g. *Une Heure ou la Vision*, *La Vision de Charles XI*, *La Vénus d'Ille*, *Lui ?*, *Apparition*), or long (e.g. *Inès de Las Sierras*, *La Cafetière*, *La Morte Amoureuse*). In relation to Hypothesis 3, the cognitive effort mentioned

should apply in both cases but be more dominant in the brief encounters as the reader is offered less interaction with the source of the ambiguously supernatural incident which is likely to make it less comprehensible. In the longer encounters, the drop is vividness following the introduction of the ambiguously supernatural incident is likely to be motivated by the reader's understanding that they have reached a crucial point in the story and their possibly getting used to the presence of the ambiguously supernatural creature as it is increasingly humanised before they usually imply their possibly supernatural nature again (*La Morte Amoureuse*, *Inès de Las Sierras*).

A final but more minor hypothesis regarding vividness of visualisation was that the participants in the experimental group should have more fluctuations in their vividness of visualisation than the control group (Hypothesis 4). This means that those in the experimental group should have more spikes and drops in their vivid visualisation than those in the control group. This hypothesis was considered in relation to the hypothesis about range (Hypothesis 1). Both *Lui ?* and *Apparition* feature multiple segments with the narrator anticipating seeing the allegedly supernatural creature (two segments in *Lui ?*) or interacting with the allegedly supernatural creature (three segments in *Apparition*), as well as questioning the ambiguously supernatural incident. The participants reading the original text in the experimental group were hypothesised to therefore go through a similar process of more vivid visualisation for the moments of anticipation as well as steeper drops in the segments in which the narrator unsuccessfully tries to understand the incident (both these texts belong to the category of texts with short ambiguously supernatural incidents).

Rereading questions

Following the open-ended question, the participants were asked if they had read the text before and whether they went backwards at any point in the experiment to reread a passage of the text. The first question was to check whether those who had read the text before had significantly different vividness ratings, and if these could have been influenced by their earlier memory of what would occur

in the text. Esrock (1998) has suggested that an individual rereading a text might have more accurate visualisations when they reread a text (75); the second question was to consider whether participants were confused or uncertain about what they were reading at any point and if and how that related to their score of vividness at that point. If they selected yes, participants were asked to specify where they went back to reread a part of the text so their vividness rating for that specific point could be considered.

Rereading hypotheses

Hypothesis 5 was that those rereading the text might have a higher average vividness of visualisation when reading the main text based on rereading hypotheses discussed by Kukkonen (2021) and Esrock (1998) in Chapter 1 (67), which encouraged the idea that those rereading a text have similar emotional responses as a first-time reader with more accurate mental imagery.

Open Response Question

Following their reading the text and rating it for vividness, participants were first asked, 'Décrivez votre ressenti par rapport à ce texte'. The purpose for this question was two-fold. The first was to investigate whether the manipulation of the text in the control condition had been successful; this was measured by the frequency with which participants mentioned the term of manipulation, e.g. 'rêve' in the control group for *Lui ?* and 'fantôme' or 'apparition' in the experimental group for *Apparition*. The second purpose was more broadly to assess whether participants in either group had any notably different responses.

Open Response Hypotheses

Hypothesis 6 was that the comments would be distinguished by the manipulation of the experimental versus the control text. For *Lui ?*, this meant that participants in the control group should mention the narrator seeing the man in a dream using the noun 'rêve' or the verb 'rêver'. For *Apparition*, this meant that those in the experimental group should explicitly use the word 'fantôme' or 'apparition'. The experimental group was hypothesized about in *Apparition* over the control as the manipulation ensured that she was understood to be a living woman in the control; however, both groups could still use the word 'femme' to describe the deceased (experimental) or mentally ill (control) woman. It was also thought that the differences between the original and manipulated text should lead to different vocabulary in the open responses. Chapter 2 established that a reader's emotional response does not necessarily need to correspond to the emotion-evoking writing in a text (116). However, as demonstrated by Krasny and Sadoski's research, the reader's emotional response often tends to be heightened by emotion-evoking writing. Hypothesis 6 refers to the words more likely to be used exclusively by those in the experimental group. The table of these words follows:

Peur
Fantastique
Image
Emotions
Apparition
Incertitude
Visualiser
Mentale
Effrayant
Surnaturel
Imagination
Vision
Hallucination
Doute
Crainte
Fantôme
Effroi
Horreur
Visuel
Frisson
Vive
Hésiter

Figure 4(k)

The list in Figure 4(k) was created based on the idea that participants in the experimental group reading the *fantastique* should have a stronger emotional response to the ambiguously supernatural incident than those in the control group because it disrupts their possible assumptions about the ordinary nature of the storyworld. Additionally, the possibility of the incident being supernatural could encourage them to feel fear, which should not be the case for the control group participants who read about the same incident occurring in a dream (*Lui ?*) or entirely in the ordinary storyworld (*Apparition*).

Genre questions

Another key question to consider was how much experience the participants were likely to already have of the *fantastique* and its neighbouring genres. A number of genres use the supernatural, such as fairy tales, fantasy, horror, and the *fantastique*. Information on how frequently readers engage with such genres could help understand the extent to which they are used to producing supernatural-related mental images when reading fiction. If, for example, a trend of more vivid visualisation was seen across the various groups for readers who read a large number of books every year which contain negative (possibly) supernatural elements (e.g. horror and the *fantastique*), it would encourage a new hypothesis about a positive relationship between experience of a genre's characteristics and one's ability to visualise it. In addition to frequency, questions were also asked regarding how much participants enjoyed reading the *fantastique* and other supernatural-related genres with four options ranging from 'Je n'aime pas ce genre' to 'J'aime beaucoup ce genre'. Similar to frequency, this was to investigate whether there is any relationship between a reader's enjoyment of a genre and their ability to visualise it vividly. After the main part of the experiment where participants read the experimental or control text and rated their vividness of visualisation, they were therefore asked to choose from a list of multiple-choice options about how frequently they read per year and how much they enjoyed the following genres: science fiction, fairy tales, horror, fantasy, and the *fantastique*. Two typical examples of each text were provided, e.g. *Harry Potter* and *Lord of the Rings* for fantasy, to reduce any uncertainty about what each genre comprises.

Genre Hypotheses

Hypothesis 7 was that those who like reading the *fantastique* should also have more vividness when responding to the main text. This was as existing theoretical research (Kukkonen 2021, Esrock 1998) (67) suggested that accurate predictions should lead to heightened vivid visualisation without reducing emotional response to the text. For similar reasons, it was hypothesized that those who read a higher number of books in general could have higher average vividness of visualisation ratings when reading the main text (Hypothesis 8).

Baseline VVIQ hypotheses

The main hypothesis regarding the baseline VVIQ questionnaire that participants completed after the main experiment was that there should be a strong positive correlation between a participants' main text and VVIQ ratings. A participant's ability to visualise the main text content is dependent on their baseline visualising ability (51). Additionally, the VVIQ (Marks 1973) has been frequently used to assess whether an individual has aphantasia or hyperphantasia. Therefore, Hypothesis 9 stated that those scoring low on the VVIQ should be unable to score highly for the main text content and participants with notably high scores on the VVIQ should also score highly for average vividness when engaging with the main text.

OSIVQ

Marks' original VVIQ test was included in my experiment to get a baseline understanding of each participant's ability to visualise vividly in relation to the main experiment. In spite of its widespread use to date, there have been some criticisms of the VVIQ. Troscianko (2013) for example, suggests the VVIQ represents visualisation in a 'pictorialist, cognitively unrealistic way' (191), arguing that the questionnaire equates the highest point of vividness to be equal to seeing something in real life, and that participants therefore 'have no way of rating their imaginative experiences as both lacking in

comprehensive detail and nonetheless perceptual in quality' (191). The Object-Spatial Imagery and Verbal questionnaire or OSIVQ was therefore introduced into my experiment as an additional measure to assess the participants' baseline visualisation abilities. The OSIVQ has been defined as follows:

> A self-report questionnaire designed to distinguish between three different types of people: 1) object imagers who prefer to construct vivid, concrete and detailed images of individual objects (e.g., visual artists), 2) spatial imagers who prefer to use imagery to schematically represent spatial relations among objects and to perform complex spatial transformations (e.g., scientists), and 3) verbalizers who prefer to use verbal-analytical tools to solve cognitive tasks (e.g., philosophers and linguists). (MML Virtual Design)

It is evident from the above quote that the key purpose of the OSIVQ is not to assess an overall vividness of visualisation, but rather to distinguish between kinds of visualisers. However, it is suggested that those scoring highly on the object-based questions in the OSIVQ should also score well on the VVIQ. Examples of object-based questions are as follows:

> 'When reading fiction, I usually form a clear and detailed mental picture of a scene or room that has been described'
>
> 'My mental images of different objects very much resemble the size, shape and colour of actual objects that I have seen.'
>
> 'When I imagine the face of a friend, I have a perfectly clear and bright image' (Blazhencova 645)

As suggested by the above questions, there should be similarities between high image-based vividness ability in the OSIVQ and high vividness as per the OSIVQ. The third example above is very similar to the first prompt in Marks' VVIQ (Figure 4(g) on). The phrase 'clear and detailed' in the first question corresponds well to Marks' description of a highly-rated mental image, 'clear and vivid' (4(h), 244). A lot of Marks' questions also relate to the experience of having seen objects in real life, e.g. 'Think of the front of a shop which you often go to' (4(g)). The OSIVQ was therefore added to the experiment as an additional measure to assess the participants' baseline vividness abilities**.** Using this

test also allowed an exploration of whether different types of visualisers as per the OSIVQ visualised with similar or different levels of vividness when reading fiction.

OSIVQ Hypotheses

As mentioned in the previous section, the main purpose of including the OSIVQ in the experiment was to have an additional measure for vividness besides the VVIQ. Hypothesis 10 was that there would be a strong positive correlation between the participants who had high ratings for the object-based questions in the OSIVQ and those who scored highly on the VVIQ.

Ambiguity Tolerance

An ambiguity tolerance test was incorporated to investigate whether there was any relationship between the participants' general tolerance to ambiguity and their vividness of visualisation and open responses. Several types of ambiguity tests were considered using Furnham and Marks' 'Tolerance of Ambiguity: A Review of the Recent Literature' (2013). Finally, David L. McLain's MSTAT-II (Multiple Stimulus Types Ambiguity Tolerance Scale) (2009) was selected for both, its short length (13 questions), and its focus on *ambiguity* tolerance. The first criterion was important as participants should not be too mentally tired by the lengthy number of questions as by this point, they would have already completed the main experiment, 16-point VVIQ, and 45-point OSIVQ. The second criterion was important as many ambiguity tests contained criteria that did not necessarily relate to ambiguity alone but could also be attributed to social awkwardness or a preference for the familiar. For example, Budner et al's Tolerance of Ambiguity scale (1962) which is widely used contains items such as 'I would like to live in a foreign country for a while' and 'I like parties where I know most of the people more than ones where all or most of the people are complete strangers' (Budner 34). It is more difficult to associate such criteria with an intolerance for ambiguity in general as well as ambiguity in fiction than

the questions in McLain's scale, e.g. 'I don't tolerate ambiguous situations well' and 'I avoid situations that are too complicated for me to easily understand' (McLain 979).

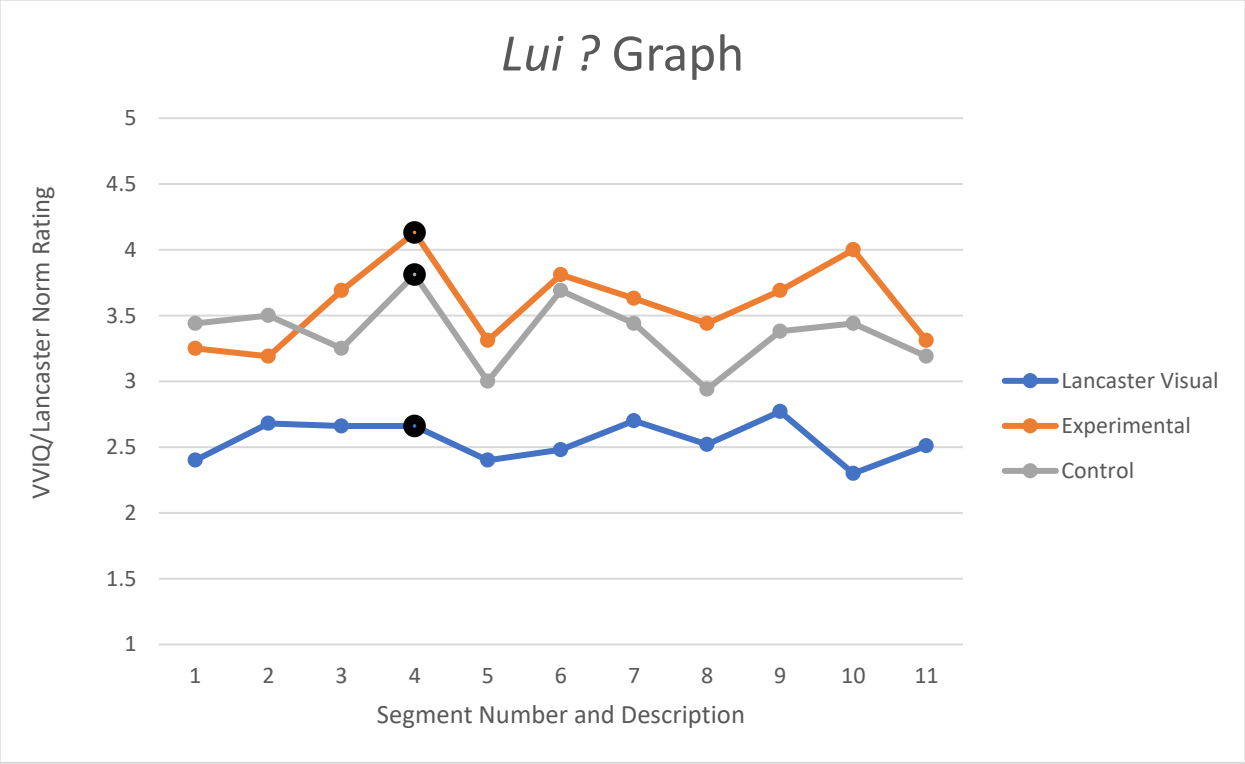
Ambiguity Tolerance Hypotheses

Two hypotheses were formed regarding the relationship between ambiguity tolerance and vividness of visualisation. Chapter 1 mentioned how it can be hypothesised that ambiguity intolerance causes heightened vividness (or ambiguity tolerance causes lowered vividness) during the ambiguously supernatural incident because it's perhaps more of a shock to those with lower ambiguity tolerance. Hypothesis 11 was therefore that those in the experimental group with lower ambiguity tolerance would have a higher score at the *fantastique* moment. In relation, Hypothesis 12 was also formed regarding the consistency of vividness; it was thought that those with more ambiguity tolerance assigned to the experimental groups might have more consistent vividness when reading because they would be less affected by the ambiguous text content. This would therefore mean that these participants would also have a lower range.

Results

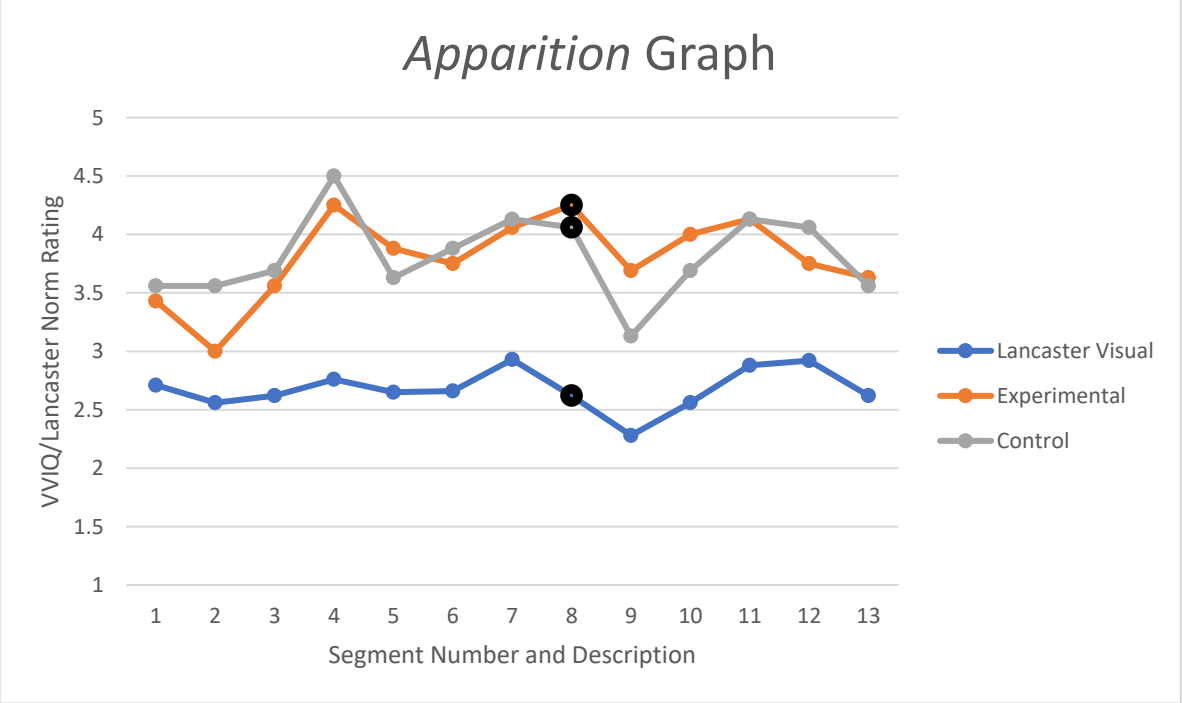
This section will describe the results in relation to each hypothesis. The average vividness rating per segment of the experimental and control groups for both texts can be seen in the graphs to follow. The perceptual strength ratings for the visual modality from the Lancaster Norms, used in Chapters 2 to discuss likely points of vivid visualisation, have been included as well. As for the graphs provided in Chapters 2 and 3, each segment of the original texts was put through the Lancaster Norms software and the average of the visual modality ratings per segment was mapped. While the other perceptual modalities and action effectors were also mapped on from the Lancaster Norms, only the visual will be compared in this chapter because the vividness of visualisation was mapped for the participants

based on their VVIQ ratings. The Lancaster Norms for the other modalities in relation to the results will be unpacked in the next chapter (294).



Graph 4(l)[28]

[28] An appendix with what each segment describes can be found at the end of the chapter.



Graph 4(m)

Lancaster Norms versus Experiment text ratings

A key point to note for both Graphs 4(i) and 4(j) is the significantly higher values of the participants' vividness ratings throughout by participants as compared to the perceptual strength ratings for the visual modality on the Lancaster Norms. The average rating for visual perceptual strength as per the Lancaster Norms in *Lui ?* and *Apparition* is 2.55 and 2.65 respectively. To compare, *Lui ?* participants across both groups had an average vividness rating of 3.88 and those assigned to *Apparition* similarly had an average vividness rating of 3.81. The pattern was statistically significant for both the experimental and control group of both texts as compared to the Lancaster Norms ($p<0.05$ for both).

Hypothesis 1: Range

Hypothesis 1 which argued that the range of vividness should be higher in the experimental than the control group was not supported for either group. The following table displays the range of each group.

Group	Range of VVIQ ratings
Lui Experimental	2
Lui Control	2.13
Apparition Experi-mental	1.625
Apparition Control	1.875

Table 4(n)

As seen above in Table 6, the range was marginally higher in both cases for the control group rather than the experimental group. A t-test suggests the differences in range per participant was not statistically significant.

Hypothesis 2: Spike in vividness in key segment

As indicated with the black dot, Point 4 is when the ambiguously supernatural incident occurs in the original text of *Lui ?* given to the experimental group (the man sitting in the chair disappears). For the control group, the same incident took place but was clearly stated to be a dream. Similarly, in Figure 4(j), the *fantastique* point occurs at Point 8; it features the appearance of a deceased woman in the experimental group and a mentally ill woman in the control group. When referring to both groups, this point will be referred to as the 'key segment'.

The hypothesis regarding an anticipated spike at the key segment was partially supported; it was accurate for *Lui ?* but not *Apparition.* As seen in Graph 1, both the experimental and control group participants in *Lui ?* indicated a spike in vividness at the key segment. Notably, for both groups in Graph 1, Point 4 was also the highest point of vividness in the entire text. In *Apparition* on the other hand, the highest point of vividness was not at the key segment but rather earlier at Point 4, where the narrator is travelling to the house and expresses strong feelings of happiness. An increase in vividness of visualisation ratings is observed at Point 8 by the participants of the experimental group but

not those in the control group. These increases in vivid visualisation will be further unpacked in Chapter 5.

Hypothesis 3: Drop in Vividness after Key Segment

A drop in vividness following the key segment was seen in all groups. On average, the drop between the key segment and the segment which followed was 0.78. However, it was hypothesised that there would be more of a drop in the experimental than the control group; this hypothesis was not supported for either text. The drop in *Lui ?'s* experimental group was larger by just 0.01 (a drop of 0.82 versus 0.81 in the control), and the drop in *Apparition*'s experimental group was smaller than that of the control (0.93 versus 0.56).

Hypothesis 4: Variance

Variance refers to how far the participant ratings for each group spreads from the mean. It was measured by squaring the standard deviation of each group's average vividness of visualisation to assess how wide the range of vivid visualisation was per group. The following table shows the variance for each group.

Lui Experimental	0.64
Lui Control	0.55
Apparition Experimental	0.40
Apparition Control	0.52

Figure 4(o)

As suggested by the numbers in the above table, there is very little variance in all groups. This indicates that the hypothesis regarding the experimental groups having more fluctuations in their vividness was not supported.

Hypothesis 5: Rereading

Only four participants in the experimental groups (two in *Lui ?*, two in *Apparition*) reported having read the texts before. As mentioned in Chapter 1 (76), no notable difference was found in their responses. Almost a third of the participants (21 of 64) reported rereading part of the text at some point; the only notable repetition of the segment read was in *Lui ?*- Two participants each from the experimental and control group reported going back to reread the key segment, when the man disappears from the sofa. No differences were found in their main text ratings.

Hypothesis 6: Open Responses

The first hypothesis relating to open responses was that participants in the control group of *Lui ?* would mention the words 'rêve/rêver'. The participants of the *Apparition* group should similarly mention 'fantôme/apparition'. This would then encourage the idea that the text manipulations had been successful, as the primary difference in *Lui ?* was that the ambiguously supernatural incident takes place in a dream rather than real life, and in *Apparition*, the possible apparition in the experimental text is described to be a human, mentally ill woman in the control text. Three out of sixteen participants in the *Lui ?* control mentioned the word 'rêve' in their open responses, e.g. 'Un grand accent est mis sur l'introspection. On ressent très bien l'exténuation du personnage, le côté obsessionnel et maladif envers ses rêves'. To compare, no participant in the experimental group of *Lui ?* mentioned dreaming. The word 'apparition' however was mentioned both by the experimental and the control groups of the second text:

Apparition Experimental open response	'….*l'apparition* n'a fait rien de menaçant....'
Apparition Control open response	'….Pour moi, l'image de la Dame Blanche , est une reference traditionnelle aux *apparitions*…'

Figure 4(p)

With the exception of *hésiter*, the words expected to be associated with the original texts were found in the open responses. However, some words were repeated in both groups, and many were mentioned only once:

Word	Number of appearances	Group(s)
Peur	8	LC[29], AE, AC
Fantastique	4	LE, AE, and AC
Image	3	LC, AC
Emotions	3	AE and AC
Apparition	3	AE, AC
Incertitude	2	LE
Visualiser	2	LC, AC
Mentale	2	LC, AC
Effrayant	1	LE
Surnaturel	1	LE
Imagination	1	LE
Vision	1	LE
Hallucination	1	LE
Doute	1	LE
Crainte	1	LE
Fantôme	1	AE
Effroi	1	AE
Horreur	1	AE
Visuel	1	AE
Frisson	2	LC, AE
vive	1	AE
Hésiter	0	-

Figure 4(q)

The hypothesis was thus partially supported for *Lui*

[29] LE= Lui Experimental, LC= Lui Control, AE= Apparition Experimental, AC= Apparition Control

? with the mentions of 'rêve' only occurring in the experimental group, but not supported for *Apparition*.

Hypothesis 7 and 8: Genre Preferences

The first hypothesis regarding genre preferences was that participants who claimed to like reading the fantastique (rating it as 'J'aime beaucoup ce genre') should have a higher vividness average when reading the main text. Those who fell into this category across all groups had an average vividness rating of 3.94/5 in the main experiment. This is slightly higher than the overall VVIQ averages of all participants (3.64). However, this test was not statistically significant (0.20). The other hypothesis formed for these responses was that those who read more books should have a higher vividness of visualisation when reading the main text. There was a weak positive correlation between the number of books the participant read per year and their vividness ratings on the main text (0.29). This difference was found to be statistically significant ($p<0.05$).

Hypothesis 9: VVIQ

A high correlation was expected between the baseline VVIQ ratings and the main text ratings, given the individual variance between visualisation abilities (51). A moderately positive correlation of 0.68 was found between participant ratings of vividness in the main text and the VVIQ. However, the relationship was not statistically significant (0.20).

Hypothesis 10: OSIVQ

The OSIVQ was introduced as an additional measure besides the VVIQ to assess visualisation ability for the participants; a strong positive correlation was expected between the object-related OSIVQ question averages and the baseline VVIQ average. A positive correlation was found between object-based visualisation in OSIVQ and baseline VVIQ scores (0.45), and a slightly stronger positive

correlation was found between the object-based questions and the participants' main text ratings (0.52). Neither however was statistically significant. The participants' rating on the non-object OSIVQ questions was also considered; however, there were no clear relationships found between those who rated spatial or verbal questions more highly than object-based questions and the main text ratings.

Hypotheses 11 and 12: Ambiguity Tolerance

Two hypotheses were formed regarding ambiguity tolerance; the first was that those with lower ambiguity tolerance would have higher vividness in the key segment. An average of 4.15 out of 5 was found for the key segment rating across groups for participants who scored above 4 out of 7 for ambiguity intolerance. While this is a high vividness rating, it is only slightly higher than the average vividness rating for the key segment across all groups (4.06). However, a stasticially significant positive correlation was found in all four groups between ambiguity intolerance and the increase in vivid visualisation at the ambiguously supernatural incident. A negative correlation was found for three of the four groups between ambiguity intolerance and the drop in vivid visualisation following the ambiguously supernatural incident. The implication of these findings will be discussed in Chapter 5 (294). The second hypothesis regarding a higher range consistency for those with higher ambiguity tolerance was also not supported.

Discussion

This section will discuss some aspects of the results in more detail and mention some limitations. As mentioned earlier, the results will be further discussed in relation to the ideas presented across Chapters 2 and 3 relating to spikes and drops in vividness in Chapter 5. Support was found for some of the hypotheses. In both the experimental groups, there was a spike at the key segment (Hypothesis 2). There was a weak positive correlation between the number of books read by a participant and their vividness of visualisation when reading the main text (Hypothesis 8). There was also a

positive correlation found between ambiguity intolerance and the increase in vivid visualisation at the key segment (relating to Hypothesis 11).

As hypothesised in Chapter 2, the difference seen in the ratings with the Lancaster Norms suggests a difference in the visual perceptual strength ratings for each word versus reading the text in sentences. The heightened ratings from readers in all experiment groups suggests the role played by visualising the situation in its entirety rather than the standalone words. This then also encourages hypotheses about the possible influence of the reader's response to the emotion-evoking writings when visualising the narrative. Additionally, correlation between the Lancaster Norms visual modality graph and the experimental and control graphs of *Lui ?* are minimal (0.07 and 0.22 respectively). For *Apparition*, however, the correlation is low but positive for the experimental group (0.34) but strongly positive between the Lancaster Norm visuals and the control group (0.77). The generally minimal correlations encourage the idea that perceptual strength alone does not contribute to creating a vivid mental image when reading fiction.

Hypothesis 6 for open responses (262) assumed certain words would be mentioned more frequently in the experimental than the control groups, e.g. peur, hésitation, incertitude, etc. The use of these specific words in the open responses will be further discussed in relation to earlier hypotheses made regarding emotion and vividness in Chapter 2 in the next chapter. However, a chi-square test suggested, given the low appearances of each word, that these results are not statistically significant and might not be replicated with a larger population. A notable finding was that there is still a distinction in how the experimental group participant makes a direct response to the apparition while the control group participant suggests the image of the woman seems to be a reference to apparitions. However, this reveals an additional overlap in the term used for the woman; one participant each from the experimental and control group of *Apparition* for example used the phrase 'Dame en blanc/la Dame Blanche' to describe her. These overlaps in terminology in spite of the text manipulation for the control group perhaps suggest that the key segment's striking line describing her sudden appearance

in both groups, 'Une grande femme vêtue de blanc me regardait…' unavoidably causes associations to the traditional female ghost. The influence of this on vividness is unclear, but it could be argued based on ideas of descriptive emotion-evoking writing in relation to fear established in Chapter 2 (112) that imagining a *dame blanche* would heighten vividness for the control group even when they are meant to be visualising a human woman.

Hypothesis 10 was that participants' OSIVQ object ratings should correlate positively with their VVIQ ratings. The lack of statistically significant results for this hypothesis calls to question whether one or the other offers a less accurate idea of participants' visualising abilities. It is difficult to evaluate what causes the differences between the two questionnaires. One possible hypothesis was that responses to the broader OSIVQ questions, e.g. 'J'ai une mémoire photographique' which related less to the VVIQ might have affected the correlation. A direct parallel between the VVIQ and the OSIVQ was mentioned earlier (255) for one of the questions: visualizing a friend's face. However, even when the ratings for this particular question was compared in the VVIQ and the OSIVQ in the experiment for all participants, a weak and statistically insignificant positive correlation of only 0.24 was found. Perhaps the original purpose of the OSIVQ to classify different types of visualisers was too distant from the purposes of the VVIQ, which was originally to classify poor and good visualisers.

A notable finding that was not hypothesized for the ambiguity tolerance responses was that the ambiguity intolerance ratings were positively correlated to the increase in vividness at the ambiguously supernatural incident for all four texts, and negatively correlated to the drop following the ambiguously supernatural incident in three of the four texts. This statistically significant ($p<0.05$) finding encouraged the idea that participants with lower ambiguity tolerance had more vivid visualisation in the key segment, but less of a drop after. The possible reasoning for this will be further unpacked in Chapter 5.

The minimal differences in range between the experimental and control groups in spite of the suggested establishment of the manipulated factor (as per the open responses in both) perhaps

suggests that the initial hypothesis overestimated the role played by the text content in creating vivid visualisation; it is possible that other individual factors influenced the vividness rating. The variance was also a lot lower than expected across all groups; similar to the range hypothesis, it is possible that a reader's baseline ability to visualise holds them at a certain level of visualisation throughout their reading of a fictional text with little fluctuation, even when confronted with unexpected events in the text. An additional element to consider here is the participants reading the text in segments and having to periodically mark their vividness. This unavoidable interruption disrupted the natural reading flow of the participants and could have, for example, caused them to reread more frequently than they would have otherwise. Additionally, this survey was completed by all participants either on a computer or on their phones, which are both less common sources for reading fiction compared to paperbacks and e-readers. All but 10 participants out of 64 claimed to read hard copies of books the most frequently. It is therefore likely that majority of participants were not reading this text in the way they would read most fiction and, with the experiment format, were likely to have had a less natural experience of the same which in turn could affect their visualising abilities to some extent.

A related issue to the experiment design is that giving participants a link meant that they could take as much time as they wished to complete the experiment. The data shows that the time taken to complete the experiment ranged from fifteen minutes to over 8 hours, suggesting that participants sometimes returned to a half-completed questionnaire after a significant amount of time away. It is impossible to determine whether such participants left the experiment during or after reading the main text. However, in the case of the former, it creates a further disruption to a natural reading experience.

The participants across the four groups were fairly equally matched in terms of age, visualisation ability, and ambiguity tolerance, as summarised by the following table:

	Average Age	Vividness Main Text	VVIQ	OSIVQ Spatial	OSIVQ Image	OSIVQ Verbal	Ambiguity Tolerance
Lui Experimental	37	3.59	3.74	2.50	3.52	3.16	4.14
Lui Control	28	3.37	3.68	2.81	3.38	3.19	3.74
Apparition Experimental	37	3.80	3.75	2.58	3.27	3.01	4.43
Apparition Control	35	3.81	3.70	2.44	3.49	3.32	3.99

Figure 4(r)

All of these elements were established in Chapter 1 to be potential factors which cause differences in vivid visualisation. Their equality across the groups therefore suggest that the results are likely to be less dependent on these external factors.

The analyses across Chapters 2 and 3 and the results also suggest that there are other variables worth considering in relation to vivid visualisation which were not included in this experiment. A questionnaire relating specifically to emotional response such as that used by Sadoski (1988) could further illuminate the relationship between emotional response and visualising the ambiguous supernatural moment suggested by many of the open responses. The haptic and auditory components in *Apparition* were not considered separately from the visual here, but additional questionnaires similar to the VVIQ for auditory and haptic responses could be another useful extension, particularly to investigate whether the distinction found between the Lancaster Norms ratings and the participant ratings of the main text would be replicated for other modalities.

Conclusion

Overall, as indicated by the results section, two hypotheses made were supported. The first was the spike at the key segment for the ambiguously supernatural incident. The second was the weak positive correlation found between the number of books read by a participant and their vividness ratings in the main text. Some support was also found for Hypothesis 11, suggesting a positive correlation between a reader's ambiguity intolerance and their increase in vivid visualisation when reading the ambiguously supernatural incident. However, Hypothesis 1, arguing that a reader's range of vivid visualisation should be larger when reading a *fantastique* as opposed to a non-*fantastique* text was not supported.

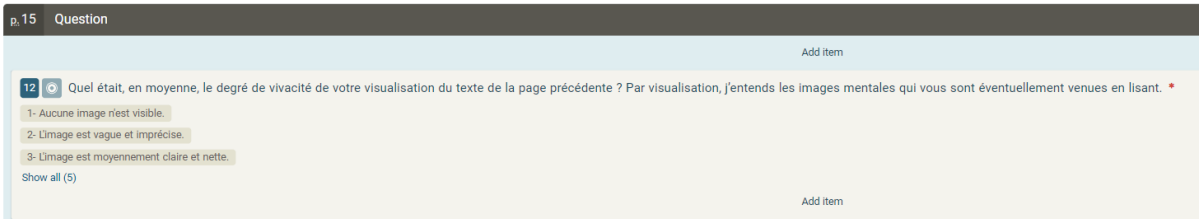
Having explained the experiment design and outlining the various hypotheses in this chapter in relation to the results, the final chapter will now synthesise the experiment findings with the analyses from Chapters 2 and 3 for *Lui ?* and *Apparition* to further consider how readers visualise the *fantastique* and address any potentially inaccurate ideas about the same which have been discouraged by the experiment results.

Chapter 4 Appendix

Experiment Questionnaire Examples

Main Text :

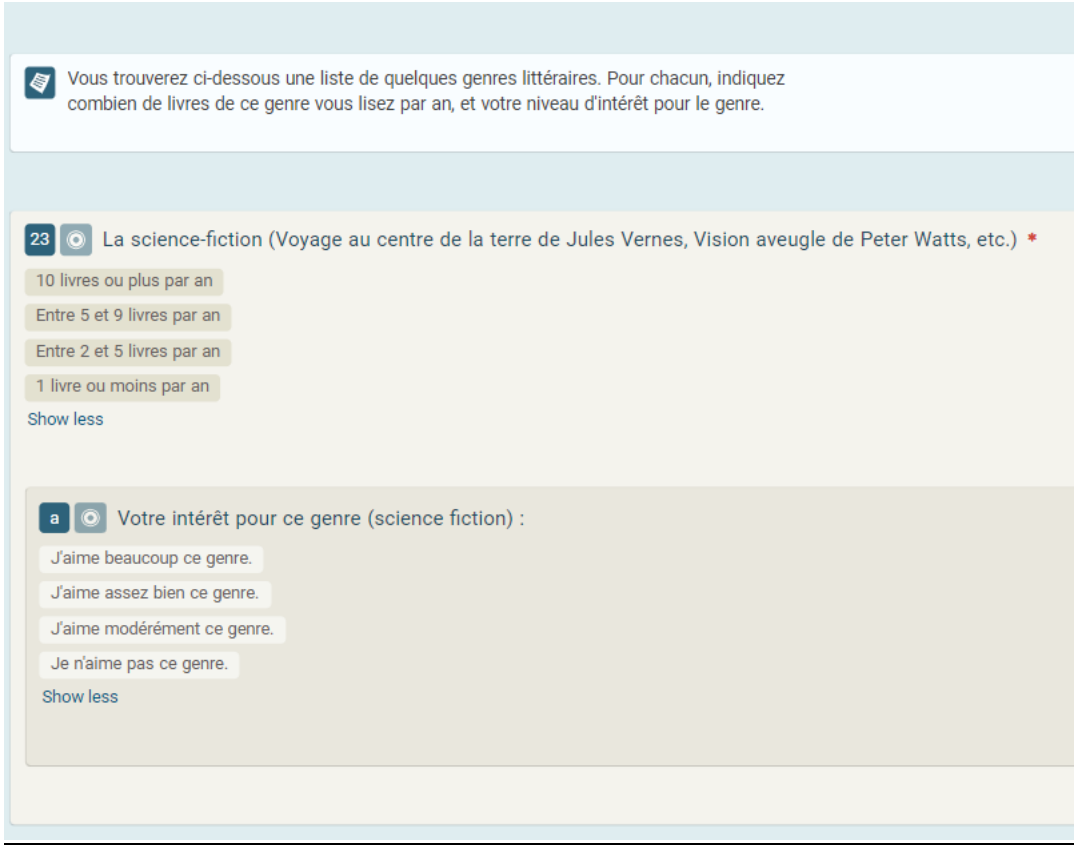




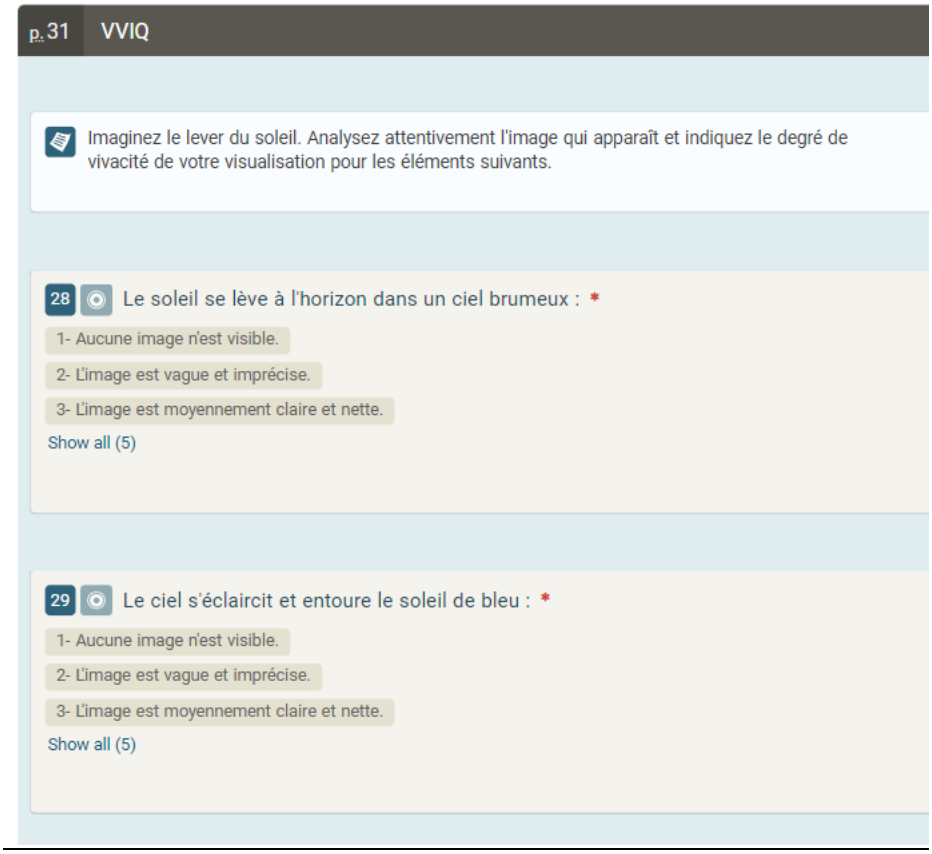
Open Response :



Genre Questions


Vous trouverez ci-dessous une liste de quelques genres littéraires. Pour chacun, indiquez combien de livres de ce genre vous lisez par an, et votre niveau d'intérêt pour le genre.
23
La science-fiction (Voyage au centre de la terre de Jules Vernes, Vision aveugle de Peter Watts, etc.) *
10 livres ou plus par an
Entre 5 et 9 livres par an
Entre 2 et 5 livres par an
1 livre ou moins par an
Show less
a
Votre intérêt pour ce genre (science fiction) :
J'aime beaucoup ce genre.
J'aime assez bien ce genre.
J'aime modérément ce genre.
Je n'aime pas ce genre.
Show less

VVIQ


p. 31 VVIQ
Imaginez le lever du soleil. Analysez attentivement l'image qui apparaît et indiquez le degré de vivacité de votre visualisation pour les éléments suivants.
28 Le soleil se lève à l'horizon dans un ciel brumeux : *
1- Aucune image n'est visible.
2- L'image est vague et imprécise.
3- L'image est moyennement claire et nette.
Show all (5)
29 Le ciel s'éclaircit et entoure le soleil de bleu : *
1- Aucune image n'est visible.
2- L'image est vague et imprécise.
3- L'image est moyennement claire et nette.
Show all (5)

OSIVQ



Indiquez le niveau de votre accord avec les phrases ci-dessous entre 1 (totalement en désaccord) et 5 (absolument d'accord).

44 Quand j'étais étudiant(e), j'étais très bon(ne) en géométrie 3D. *

	1	2	3	4	5
Niveau d'accord	☐	☐	☐	☐	☐

45 Il est difficile pour moi de m'exprimer par écrit. *

	1	2	3	4	5
Niveau d'accord	☐	☐	☐	☐	☐

46 Si on me demandait de choisir entre un métier d'ingénieur et un métier dans les arts visuels, je choisirais ingénieur. *

	1	2	3	4	5
Niveau d'accord	☐	☐	☐	☐	☐

Ambiguity Tolerance Questionnaire



Lui: Control Text

Mon cher ami, tu n'y comprends rien ? et je le conçois. Tu me crois devenu fou ? Je le suis peut-être un peu, mais non pas pour les raisons que tu supposes.

Oui. Je me marie. Voilà.

Et pourtant mes idées et mes convictions n'ont pas changé. Je considère l'accouplement légal comme une bêtise. Je suis certain que huit maris sur dix sont cocus. Et ils ne méritent pas moins pour avoir eu l'imbécillité d'enchaîner leur vie, de renoncer à l'amour libre, la seule chose gaie et bonne au monde, de couper l'aile à la fantaisie qui nous pousse sans cesse à toutes les femmes, etc., etc. Plus

que jamais je me sens incapable d'aimer une femme parce que j'aimerai toujours trop toutes les autres. Je voudrais avoir mille bras, mille lèvres et mille... tempéraments pour pouvoir étreindre en même temps une armée de ces êtres charmants et sans importance.

Et cependant je me marie.

J'ajoute que je ne connais guère ma femme de demain. Je l'ai vue seulement quatre ou cinq fois. Je sais qu'elle ne me déplaît point ; cela me suffit pour ce que j'en veux faire. Elle est petite, blonde et grasse. Après-demain, je désirerai ardemment une femme grande, brune et mince.

Elle n'est pas riche. Elle appartient à une famille moyenne. C'est une jeune fille comme on en trouve à la grosse, bonnes à marier, sans qualités et sans défauts apparents, dans la bourgeoisie ordinaire. On dit d'elle : « Mlle Lajolle est bien gentille. » On dira demain : « Elle est fort gentille, Mme Raymon. » Elle appartient enfin à la légion des jeunes filles honnêtes « dont on est heureux de faire sa femme » jusqu'au jour où on découvre qu'on préfère justement toutes les autres femmes à celle qu'on a choisie.

Alors pourquoi me marier, diras-tu ?

J'ose à peine t'avouer l'étrange et invraisemblable raison qui me pousse à cet acte insensé.

Je me marie pour ~~n'être~~ **ne pas dormir** seul !

Je ne sais comment dire cela, comment me faire comprendre. Tu auras pitié de moi, et tu me mépriseras, tant mon état d'esprit est misérable.

Je ne veux plus être seul, la nuit. Je veux sentir un être près de moi, contre moi, un être qui peut parler, dire quelque chose, n'importe quoi.

Je veux pouvoir briser son sommeil ; lui poser une question quelconque brusquement, une question stupide pour entendre une voix, pour sentir habitée ma demeure, pour sentir une âme en éveil, un raisonnement en travail, pour voir, allumant brusquement ma bougie, une figure humaine à

mon côté..., parce que... parce que... (je n'ose pas avouer cette honte) ... parce que j'ai peur **de dormir**, tout seul.

Oh ! tu ne me comprends pas encore.

Je n'ai pas peur d'un danger. Un homme entrerait, je le tuerais sans frissonner. Je n'ai pas peur des revenants ; je ne crois pas au surnaturel. Je n'ai pas peur des morts ; je crois à l'anéantissement définitif de chaque être qui disparaît !

Alors !... Oui, alors !... Eh bien ! j'ai peur de ~~**moi**~~ **mes rêves** ! j'ai peur de la peur ; peur des ~~**spasmes de mon esprit qui s'affole**~~ **rêves**, peur de ~~**cette**~~ **ces horribles** ~~**sensation de la terreur**~~ **cauchemar** incompréhensible**s**.

Ris si tu veux. Cela est affreux, inguérissable. J'ai peur des murs, des meubles, des objets familiers qui s'animent, pour moi, d'une sorte de vie animale. J'ai peur surtout du trouble horrible de ma pensée, de ma raison qui m'échappe brouillée, dispersée par une mystérieuse et invisible angoisse.

Quand je rêve, je sens d'abord une vague inquiétude qui me passe dans l'âme et me fait courir un frisson sur la peau. **Dans ces rêves, j**e regarde autour de moi. Rien ! Et je voudrais quelque chose ! Quoi ? Quelque chose de compréhensible. Puisque j'ai peur uniquement parce que je ne comprends pas ma peur.

Dans mes rêves, je parle ! j'ai peur de ma voix. Je marche ! j'ai peur de l'inconnu de derrière la porte, de derrière le rideau, de dans l'armoire, de sous le lit. Et pourtant je sais qu'il n'y a rien nulle part.

Je me retourne brusquement parce que j'ai peur de ce qui est derrière moi, bien qu'il n'y ait rien et que je le sache.

Je m'agite, je sens mon effarement grandir ; et je m'enferme dans ma chambre ; et je m'enfonce dans mon lit, et je me cache sous mes draps ; et blotti, roulé comme une boule, je ferme les yeux désespérément, et je demeure ainsi pendant un temps infini avec cette pensée que ma bougie demeure allumée sur ma table de nuit et qu'il faudrait pourtant l'éteindre. Et je n'ose pas.

N'est-ce pas affreux, d'être ainsi ?

Autrefois je n'éprouvais rien de cela. Je rentrais tranquillement. J'allais et je venais en mon logis, **je dormais et je me reveillais les matins** sans que rien troublât la sérénité de mon âme. Si l'on m'avait dit quelle maladie de**s** ~~ peur~~ **cauchemars** invraisemblable**s**, stupide**s** et terrible**s**, devait me saisir un jour, j'aurais bien ri ; j'ouvrais les portes dans l'ombre avec assurance ; je me couchais lentement, sans pousser les verrous, et je ne me relevais jamais au milieu des nuits pour m'assurer que toutes les issues de ma chambre étaient fortement closes.

Cela a commencé l'an dernier d'une singulière façon.

C'était en automne, par un soir humide. Quand ma bonne fut partie, après mon dîner, je me demandai ce que j'allais faire. Je marchai quelque temps à travers ma chambre. Je me sentais las, accablé sans raison, incapable de travailler, sans force même pour lire. Une pluie fine mouillait les vitres ; j'étais triste, tout pénétré par une de ces tristesses sans causes qui vous donnent envie de pleurer, qui vous font désirer de parler à n'importe qui pour secouer la lourdeur de notre pensée.

Je me sentais seul. Mon logis me paraissait vide comme il n'avait jamais été. Une solitude infinie et navrante m'entourait. Que faire ? Je m'assis. Alors une impatience nerveuse me courut dans les jambes. Je me relevai, et je me remis à marcher. J'avais peut-être aussi un peu de fièvre, car mes mains, que je tenais rejointes derrière mon dos, comme on fait souvent quand on se promène avec lenteur, se brûlaient l'une à l'autre, et je le remarquai.

Puis soudain un frisson de froid me courut dans le dos. Je pensai que l'humidité du dehors entrait chez moi, et l'idée de faire du feu me vint. J'en allumai ; c'était la première fois de l'année. Et je

m'assis de nouveau en regardant la flamme. Mais bientôt l'impossibilité de rester en place me fit encore me relever, et je sentis qu'il fallait m'en aller, me secouer, trouver un ami.

Je sortis. J'allai chez trois camarades que je ne rencontrai pas ; puis, je gagnai le boulevard, décidé à découvrir une personne de connaissance.

Il faisait triste partout. Les trottoirs trempés luisaient. Une tiédeur d'eau, une de ces tiédeurs qui vous glacent par frissons brusques, une tiédeur pesante de pluie impalpable accablait la rue, semblait lasser et obscurcir la flamme du gaz.

J'allais d'un pas mou, me répétant : « Je ne trouverai personne avec qui causer. »

J'inspectai plusieurs fois les cafés, depuis la Madeleine jusqu'au faubourg Poissonnière. Des gens tristes, assis devant des tables, semblaient n'avoir pas même la force de finir leurs consommations.

J'errai longtemps ainsi, et vers minuit, je me mis en route pour rentrer chez moi. J'étais fort calme, mais fort las. **Je m'endormis tranquillement aussitôt que j'étais dans mon lit. Puis mon rêve commença. Dans le rêve, je me vis dehors, en train de rentrer chez moi de quelque part.** Mon concierge, qui se couche avant onze heures, m'ouvrit tout de suite, contrairement à son habitude ; et je pensai : « Tiens, un autre locataire vient sans doute de remonter. »

Quand je sors de chez moi, je donne toujours à ma porte deux tours de clef. Je la trouvai simplement tirée, et cela me frappa. Je supposai qu'on m'avait monté des lettres dans la soirée.

J'entrai. Mon feu brûlait encore et éclairait même un peu l'appartement. Je pris une bougie pour aller l'allumer au foyer, lorsqu'en jetant les yeux devant moi, j'aperçus quelqu'un assis dans mon fauteuil, et qui se chauffait les pieds en me tournant le dos.

Je n'eus pas peur, oh ! non, pas le moins du monde. Une supposition très vraisemblable me traversa l'esprit ; celle qu'un de mes amis était venu pour me voir. La concierge, prévenue par moi à

ma sortie, avait dit que j'allais rentrer, avait prêté sa clef. Et toutes les circonstances de mon retour, en une seconde, me revinrent à la pensée : le cordon tiré tout de suite, ma porte seulement poussée.

Dans ce rêve, **m**on ami, dont je ne voyais que les cheveux, s'était endormi devant mon feu en m'attendant, et je m'avançai pour le réveiller. Je le voyais parfaitement, un de ses bras pendant à droite ; ses pieds étaient croisés l'un sur l'autre ; sa tête, penchée un peu sur le côté gauche du fauteuil, indiquait bien le sommeil. Je me demandais : « Qui est-ce ? » On y voyait peu d'ailleurs dans la pièce. J'avançai la main pour lui toucher l'épaule !...

Je rencontrai le bois du siège ! Il n'y avait plus personne. Le fauteuil était vide !

Quel sursaut, miséricorde !

Je me levai, ~~je~~ reculai d'abord comme si un danger terrible eût apparu devant moi.

Puis je me retournai, sentant quelqu'un derrière mon dos ; puis, aussitôt, un impérieux besoin de revoir le fauteuil me fit pivoter encore une fois. Et je demeurai debout, haletant d'épouvante, tellement éperdu que je n'avais plus une pensée, prêt à tomber.

Mais je suis un homme de sang-froid, et tout de suite la raison me revint. Je songeai : « ~~**Je viens d'avoir une hallucination**~~ **C'était un cauchemar**, voilà tout. » Et je réfléchis immédiatement sur ce phénomène. La pensée va vite dans ces moments-là.

~~J'avais eu une hallucination~~ **Je rêvais**— c'était là un fait incontestable. Or, mon esprit était demeuré tout le temps lucide, fonctionnant régulièrement et logiquement. Il n'y avait donc aucun trouble du côté du cerveau. ~~Les yeux seuls s'étaient trompés, avaient~~ **Mais mon cerveau s'était** trompé, **avait trompé** ma pensée. ~~Les yeux avaient~~ **Il avait** eu une vision, une de ces visions qui font croire aux miracles les gens naïfs. C'était là un accident nerveux, de l'appareil optique, rien de plus, un peu de congestion peut-être.

Et j'allumai ma bougie. Je m'aperçus, en me baissant vers le feu, que je tremblais, et je me relevai d'une secousse, comme si on m'eût touché par derrière.

Je n'étais point tranquille assurément.

Je fis quelques pas ; je parlai haut. Je chantai à mi-voix quelques refrains.

Puis je fermai la porte de ma chambre à double tour, et je me sentis un peu rassuré. Personne ne pouvait entrer, au moins.

Je m'assis encore et je réfléchis longtemps à mon aventure ; puis je me couchai, et je soufflai ma lumière.

Pendant quelques minutes, tout alla bien. Je restais sur le dos, assez paisiblement. **Et je me rendormis, retournant à mon cauchemar. Cette fois, j'étais debout au milieu de ma chambre, regardant autour de moi.** ~~**Puis le besoin me vint de regarder dans ma chambre ; et je me mis sur le côté.**~~

Mon feu n'avait plus que deux ou trois tisons rouges qui éclairaient juste les pieds du fauteuil ; et je crus revoir l'homme assis dessus.

J'enflammai une allumette d'un mouvement rapide. Je m'étais trompé, je ne voyais plus rien.

Je me levai **encore**, ~~**cependant,**~~ et j'allai cacher le fauteuil derrière mon lit.

Puis je refis l'obscurité et je tâchai de m'endormir. Je n'avais pas perdu connaissance depuis plus de cinq minutes, quand j'aperçus, en songe, et nettement comme dans la réalité, toute la scène de la soirée. Je me réveillai éperdument, et, ayant éclairé mon logis, je demeurai assis dans mon lit, sans oser même essayer de redormir.

Deux fois cependant le sommeil m'envahit, malgré moi, pendant quelques secondes. Deux fois je revis la chose. Je me croyais devenu fou.

Quand le jour parut, je me sentis guéri et je sommeillai paisiblement jusqu'à midi.

C'était fini, bien fini. J'avais eu la fièvre, le cauchemar, que sais-je ? J'avais été malade, enfin. Je me trouvai néanmoins fort bête.

Je fus très gai ce jour-là. Je dînai au cabaret ; j'allai voir le spectacle, puis je me mis en chemin pour rentrer. **Je rentrai et je dormis.**

Je rêvai encore.

Dans ce rêve, je rentrai chez moi. Mais voilà qu'en approchant de ma maison une inquiétude étrange me saisit. J'avais peur de le revoir, lui. Non pas peur de lui, non pas peur de sa présence, à laquelle je ne croyais point, mais j'avais peur d'un trouble nouveau de mes yeux, peur de l'hallucination, peur de l'épouvante qui me saisirait.

~~**Pendant plus d'une heure,** **J**~~'errai de long en large sur le trottoir ; puis je me trouvai trop imbécile à la fin et j'entrai. Je haletais tellement que je ne pouvais plus monter mon escalier. Je restai encore plus de dix minutes devant mon logement sur le palier, puis, brusquement, j'eus un élan de courage, un roidissement de volonté. J'enfonçai ma clef ; je me précipitai en avant une bougie à la main, je poussai d'un coup de pied la porte entrebâillée de ma chambre, et je jetai un regard effaré vers la cheminée. Je ne vis rien. « Ah !... »

Quel soulagement ! Quelle joie ! Quelle délivrance ! J'allais et je venais d'un air gaillard. Mais je ne me sentais pas rassuré ; je me retournais par sursauts ; l'ombre des coins m'inquiétait.

Je me reveillai. Mais je dormis mal **le reste de la nuit à cause de ce cauchemar.** ~~**réveillé sans cesse par des bruits imaginaires. Mais je ne le vis pas. Non. C'était fini !**~~

Depuis ce jour-là j'ai peur tout seul, la nuit. **Je sens que j'aurai encore ce cauchemar, cependant** ~~**Je la sens là, près de moi, autour de moi, la vision. Elle**~~ **il** ne m'est point apparu de nouveau. Oh non ! Et qu'importe, d'ailleurs, puisque je n'y crois pas, puisque je sais que ce n'est rien !

Il me gêne cependant parce que j'y pense sans cesse. — Une main pendait du côté droit, sa tête était penchée du côté gauche comme celle d'un homme qui dort... Allons, assez, nom de Dieu ! je n'y veux plus songer !

Qu’est-ce que cette obsession, pourtant ? Pourquoi cette persistance ? Ses pieds étaient tout près du feu !

Il me hante, c’est fou, mais c’est ainsi. Qui, Il ? Je sais bien qu’il n’existe pas, que ce n’est rien ! Il n’existe que dans mon appréhension, que dans ma crainte, que dans mon angoisse ! Allons, assez !...

Oui, mais j’ai beau me raisonner, me roidir, je ne peux plus rester seul chez moi, parce **que je sais que je rêverai de lui.** ~~**qu’il y est**~~. Je ne le verrai **dans la vie réelle**, je le sais, ~~**il ne se montrera plus, c’est fini cela. Mais**~~ **mais** il y est tout de même, dans ma pensée. Il demeure invisible, cela n’empêche qu’il y soit. **Dans mes rêves,** il est derrière les portes, dans l’armoire fermée, sous le lit, dans tous les coins obscurs, dans toutes les ombres. Si je tourne la porte, si j’ouvre l’armoire, si je baisse ma lumière sous le lit, si j’éclaire les coins, les ombres, il n’y est plus ; mais alors je le sens derrière moi. Je me retourne, certain cependant que je ne le verrai pas, que je ne le verrai plus. Il **me hante jusqu’à mon réveil.** ~~n’en est pas moins derrière moi, encore.~~

C’est stupide, mais c’est atroce. Que veux-tu ? Je n’y peux rien.

Mais si nous étions deux chez moi, je sens, oui, je sens assurément qu’il n’y serait plus **dans mes rêves** ! Car il est là parce que je suis seul, uniquement parce que je suis seul !

Apparition Control Text

On parlait de séquestration à propos d'un procès récent. C'était à la fin d'une soirée intime, rue de Grenelle, dans un ancien hôtel, et chacun avait son histoire, une histoire qu'il affirmait vraie. Alors le vieux marquis de la Tour-Samuel, âgé de quatre-vingt-deux ans, se leva et vint s'appuyer à la cheminée. Il dit de sa voix un peu tremblante :

Moi aussi, je sais une chose étrange, tellement étrange, qu'elle a été l'obsession de ma vie. Voici maintenant cinquante-six ans que cette aventure m'est arrivée, et il ne se passe pas un mois sans que

je la revoie en rêve. Il m'est demeuré de ce jour-là une marque, une empreinte de peur, me comprenez-vous ? Oui, j'ai ~~subi~~ **vécu des événements si étranges** ~~l'horrible épouvante, pendant dix minutes, d'une telle façon~~ que depuis cette heure une sorte de ~~terreur~~ **question** constante m'est restée dans l'âme. ~~**Les bruits inattendus me font tressaillir jusqu'au cœur ; les objets que je distingue mal dans l'ombre du soir me donnent une envie folle de me sauver. J'ai peur la nuit, enfin.**~~

Oh ! je n'aurais pas avoué cela avant d'être arrivé à l'âge où je suis. Maintenant je peux tout dire. Il est permis de n'être pas brave devant les dangers imaginaires, quand on a quatre-vingt-deux ans. Devant les dangers véritables, je n'ai jamais reculé, mesdames.

Cette histoire m'a tellement bouleversé l'esprit, a jeté en moi un trouble si profond, si mystérieux, si épouvantable, que je ne l'ai même jamais racontée. Je l'ai gardée dans le fond intime de moi, dans ce fond où l'on cache les secrets pénibles, les secrets honteux, toutes les inavouables faiblesses que nous avons dans notre existence.

Je vais vous dire l'aventure telle quelle, sans chercher à l'expliquer. Il est bien certain qu'elle est explicable, à moins que je n'aie eu mon heure de folie. ~~**Mais non, je n'ai pas été fou, et vous en donnerai la preuve. Imaginez ce que vous voudrez.**~~ Voici les faits tout simples.

C'était en 1827, au mois de juillet. Je me trouvais à Rouen en garnison.

Un jour, comme je me promenais sur le quai, je rencontrai un homme que je crus reconnaître sans me rappeler au juste qui c'était. Je fis, par instinct, un mouvement pour m'arrêter. L'étranger aperçut ce geste, me regarda et tomba dans mes bras.

C'était un ami de jeunesse que j'avais beaucoup aimé. Depuis cinq ans que je ne l'avais vu, il semblait vieilli d'un demi-siècle. Ses cheveux étaient tout blancs ; et il marchait courbé, comme épuisé. Il comprit ma surprise et me conta sa vie. Un malheur terrible l'avait brisé.

Devenu follement amoureux d'une jeune fille, il l'avait épousée dans une sorte d'extase de bonheur. Après un an d'une félicité surhumaine et d'une passion inapaisée, elle ~~**était morte**~~

~~subitement d'une maladie de cœur~~ **est devenue folle d'une maladie d'espirit**, ~~tuée par l'amour lui-même,~~ sans doute.

Il **est devenu impossible de vivre avec elle. Il l'**avait ~~quitté~~ **laissé dans** son château **sans jamais rentrer.** ~~le jour même de l'enterrement, et~~ Il était venu habiter son hôtel de Rouen. Il vivait là, solitaire et désespéré, rongé par la douleur, si misérable qu'il ne pensait qu'au suicide.

"Puisque je te retrouve ainsi, me dit-il, je te demanderai de me rendre un grand service, c'est d'aller chercher chez moi dans le secrétaire de ma chambre, de notre chambre, **où elle vit encore,** quelques papiers dont j'ai un urgent besoin. Je ne puis charger de ce soin un subalterne ou un homme d'affaires, car il me faut une impénétrable discrétion et un silence absolu. Quant à moi, pour rien au monde je ne rentrerai dans cette maison.

Je te donnerai la clef de cette chambre que j'ai fermée moi-même en partant, et la clef de son secrétaire. Tu remettras en outre un mot de moi à mon jardinier qui t'ouvrira le château.

Mais viens déjeuner avec moi demain, et nous causerons de cela."

Je lui promis de lui rendre ce léger service. Ce n'était d'ailleurs qu'une promenade pour moi, son domaine se trouvant situé à cinq lieues de Rouen environ. J'en avais pour une heure à cheval.

A dix heures, le lendemain, j'étais chez lui. Nous déjeunâmes en tête à tête ; mais il ne prononça pas vingt paroles. Il me pria de l'excuser ; la pensée de la visite que j'allais **rendre à sa femme,** ~~faire dans cette chambre,~~ où gisait son bonheur, le bouleversait, me disait-il. Il me parut en effet singulièrement agité, préoccupé, comme si un mystérieux combat se fût livré dans son âme.

Enfin il m'expliqua exactement ce que je devais faire. C'était bien simple. Il me fallait prendre deux paquets de lettres et une liasse de papiers enfermés dans le premier tiroir de droite du meuble dont j'avais la clef. Il ajouta :

"Je n'ai pas besoin de te prier de n'y point jeter les yeux."

Je fus presque blessé de cette parole, et je le lui dis un peu vivement. Il balbutia : "Pardonne-moi, je souffre trop." Et il se mit à pleurer.

Je le quittai vers une heure pour accomplir ma mission.

Il faisait un temps radieux, et j'allais au grand trot à travers les prairies, écoutant des chants d'alouettes et le bruit rythmé de mon sabre sur ma botte.

Puis j'entrai dans la forêt et je mis au pas mon cheval. Des branches d'arbres me caressaient le visage ; et parfois j'attrapais une feuille avec mes dents et je la mâchais avidement, dans une de ces joies de vivre qui vous emplissent, on ne sait pourquoi, d'un bonheur tumultueux et comme insaisissable, d'une sorte d'ivresse de force.

En approchant du château, je cherchai dans ma poche la lettre que j'avais pour le jardinier, et je m'aperçus avec étonnement qu'elle était cachetée. Je fus tellement surpris et irrité que je faillis revenir sans m'acquitter de ma commission. Puis je songeai que j'allais montrer là une susceptibilité de mauvais goût. Mon ami avait pu d'ailleurs fermer ce mot sans y prendre garde, dans le trouble où il était.

Le manoir semblait abandonné depuis vingt ans. La barrière, ouverte et pourrie, tenait debout on ne sait comment. L'herbe emplissait les allées ; on ne distinguait plus les plates-bandes du gazon.

Au bruit que je fis en tapant à coups de pied dans un volet, un vieil homme sortit d'une porte de côté et parut stupéfait de me voir. Je sautai à terre et je remis ma lettre. Il la lut, la relut, la retourna, me considéra en dessous, mit le papier dans sa poche et prononça :

"Eh bien ! Qu’est-ce que vous désirez ?"

Je répondis brusquement :

"Vous devez le savoir, puisque vous avez reçu là-dedans les ordres de votre maître ; je veux entrer dans ce château."

Il semblait atterré. Il déclara : "Alors, vous allez dans... dans sa chambre ?"

Je commençai à m'impatienter.

"Parbleu ! Mais est-ce que vous auriez l'intention de m'interroger, par hasard ?"

Il balbutia :

"Non... Monsieur... mais c'est que... **~~c'est qu'elle n'a pas été ouverte depuis... depuis la... mort.~~** Si vous voulez m'attendre cinq minutes, je vais aller... aller voir si..."

Je l'interrompis avec colère :

"Ah ! ça voyons, vous fichez-vous de moi ? Vous n'y pouvez pas entrer, puisque voici la clef."

Il ne savait plus que dire. "Alors, Monsieur, je vais vous montrer la route. - Montrez-moi l'escalier et laissez-moi seul. Je la trouverai bien sans vous. - Mais... Monsieur... cependant..." Cette fois, je m'emportai tout à fait : "Maintenant, taisez-vous, n'est-ce pas ? ou vous aurez affaire à moi." Je l'écartai violemment et je pénétrai dans la maison.

Je traversai d'abord la cuisine, puis deux petites pièces que cet homme habitait avec sa femme. Je franchis ensuite un grand vestibule, je montai l'escalier et je reconnus la porte indiquée par mon ami.

Je l'ouvris sans peine et j'entrai.

L'appartement était tellement sombre que je n'y distinguai rien d'abord. Je m'arrêtai, saisi par cette odeur moisie et fade des pièces inhabitées et condamnées, des chambres mortes. Puis, peu à peu, mes yeux s'habituèrent à l'obscurité, et je vis assez nettement une grande pièce en désordre, avec un lit sans draps, mais gardant ses matelas et ses oreillers, dont l'un portait l'empreinte profonde d'un coude ou d'une tête comme si on venait de se poser dessus.

Les sièges semblaient en déroute. Je remarquai qu'une porte, celle d'une armoire sans doute, était demeurée entrouverte.

J'allai d'abord à la fenêtre pour donner du jour et je l'ouvris ; mais les ferrures du contrevent étaient tellement rouillées que je ne pus les faire céder.

J'essayai même de les casser avec mon sabre, sans y parvenir. Comme je m'irritais de ces efforts inutiles, et comme mes yeux s'étaient enfin parfaitement accoutumés à l'ombre, je renonçai à l'espoir d'y voir plus clair et j'allai au secrétaire.

Je m'assis dans un fauteuil, j'abattis la tablette, j'ouvris le tiroir indiqué. Il était plein jusqu'aux bords. Il ne me fallait que trois paquets, que je savais comment reconnaître, et je me mis à les chercher.

Je m'écarquillais les yeux à déchiffrer les suscriptions, quand je crus entendre ou plutôt sentir un frôlement derrière moi. Je n'y pris point garde, pensant qu'un courant d'air avait fait remuer quelque étoffe. Mais, au bout d'une minute, un autre mouvement, presque indistinct, me fit passer sur la peau un singulier petit frisson désagréable. C'était tellement bête d'être ému, même à peine, que je ne voulus pas me retourner, par pudeur pour moi-même. Je venais alors de découvrir la seconde des liasses qu'il me fallait ; et je trouvais justement la troisième, quand un grand et pénible soupir, poussé contre mon épaule, me fit faire un bond de fou à deux mètres de là. Dans mon élan je m'étais retourné, la main sur la poignée de mon sabre, et certes, si je ne l'avais pas senti à mon côté, je me serais enfui comme un lâche.

Une grande femme vêtue de blanc me regardait, debout derrière le fauteuil où j'étais assis une seconde plus tôt.

Une telle secousse me courut dans les membres que je faillis m'abattre à la renverse ! Oh ! personne ne peut comprendre, à moins de les avoir ressenties, ces épouvantables ~~et stupides terreurs~~ **chocs**. L'âme se fond ; on ne sent plus son cœur ; le corps entier devient mou comme une éponge, on dirait que tout l'intérieur de nous s'écroule.

~~Je ne crois pas aux fantômes ; eh bien ! J~~'ai défailli sous la hideuse **appréhension !** J'ai souffert, oh ! Souffert en quelques instants plus qu'en tout le reste de ma vie, dans l'angoisse irrésistible ~~des épouvantes surnaturelles~~ **de la folie**.

~~Si elle n'avait pas parlé, je serais mort peut-être ! Mais~~ **Pui** elle parla ; elle parla d'une voix douce et douloureuse qui faisait vibrer les nerfs. Je n'oserais pas dire que je redevins maître de moi et que je retrouvai ma raison. Non. J'étais éperdu à ne plus savoir ce que je faisais ; mais cette espèce de fierté intime que j'ai en moi, un peu d'orgueil de métier aussi, me faisaient garder, presque malgré moi, une contenance honorable. Je posais pour moi et pour elle sans doute~~, pour elle, quelle qu'elle fût, femme ou spectre~~. Je me suis rendu compte de tout cela plus tard, car je vous assure que, dans l'instant ~~de l'apparition~~, je ne songeais à rien. J'avais peur.

Elle dit :

"Oh ! Monsieur, vous pouvez me rendre un grand service !"

Je voulus répondre, mais il me fut impossible de prononcer un mot. Un bruit vague sortit de ma gorge.

Elle reprit :

"Voulez-vous ? Vous pouvez me sauver, me guérir. Je souffre affreusement. Je souffre, oh ! je souffre !"

Et elle s'assit doucement dans mon fauteuil. Elle me regardait :

"Voulez-vous ?"

Je fis : "Oui !" de la tête, ayant encore la voix paralysée.

Alors elle me tendit un peigne en écaille et elle murmura :

"Peignez-moi, oh ! Peignez-moi ; cela me guérira ; il faut qu'on me peigne. Regardez ma tête... Comme je souffre ; et mes cheveux comme ils me font mal !"

Ses cheveux dénoués, très longs, très noirs, me semblait-il, pendaient par-dessus le dossier du fauteuil et touchaient la terre.

Pourquoi ai-je fait ceci ? Pourquoi ai-je reçu en frissonnant ce peigne, et pourquoi ai-je pris dans mes mains ses longs cheveux qui me donnèrent à la peau une sensation de froid atroce comme si j'eusse manié des serpents ? Je n'en sais rien.

Cette sensation m'est restée dans les doigts et je tressaille en y songeant.

Je la peignai. Je maniai je ne sais comment cette chevelure de glace. Je la tordis, je la renouai et la dénouai ; je la tressai comme on tresse la crinière d'un cheval. Elle soupirait, penchait la tête, semblait heureuse.

Soudain elle me dit : "Merci !" m'arracha le peigne des mains et s'enfuit par la porte que j'avais remarquée entrouverte.

Resté seul, j'eus, pendant quelques secondes, ce trouble effaré des réveils après les cauchemars. Puis je repris enfin mes sens ; je courus à la fenêtre et je brisai les contrevents d'une poussée furieuse.

Un flot de jour entra. Je m'élançai sur la porte par où ~~**cet être**~~ **elle** était parti**, mais je ne la vis plus**. ~~**Je la trouvai fermée et inébranlable. Alors une fièvre de fuite m'envahit, une panique, la vraie panique des batailles.**~~ Je saisis brusquement les trois paquets de lettres sur le secrétaire ouvert ; je traversai l'appartement en courant, je sautai les marches de l'escalier quatre par quatre, je me trouvai dehors et je ne sais par où, et, apercevant mon cheval à dix pas de moi, je l'enfourchai d'un bond et partis au galop.

Je ne m'arrêtai qu'à Rouen, et devant mon logis. Ayant jeté la bride à mon ordonnance, je me sauvai dans ma chambre où je m'enfermai pour réfléchir.

~~Alors, pendant une heure, je me demandai anxieusement si je n'avais pas été le jouet d'une hallucination. Certes, j'avais eu un de ces incompréhensibles ébranlements nerveux, un de ces affolements du cerveau qui enfantent les miracles, à qui le Surnaturel doit sa puissance.~~

~~Et j'allais croire à une vision, à une erreur de mes sens, quand je m'approchai de ma fenêtre.~~ Mes yeux, par hasard, descendirent sur ma poitrine. Mon dolman était plein de longs cheveux de femme qui s'étaient enroulés aux boutons !

Je les saisis un à un et je les jetai dehors avec des tremblements dans les doigts.

Puis j'appelai mon ordonnance. Je me sentais trop ému, trop troublé, pour aller le jour même chez mon ami. Et puis je voulais mûrement réfléchir à ce que je devais lui dire.

Je lui fis porter ses lettres, dont il remit un reçu au soldat. Il s'informa beaucoup de moi. On lui dit que j'étais souffrant, que j'avais reçu un coup de soleil, je ne sais quoi. Il parut inquiet.

Je me rendis chez lui le lendemain, dès l'aube, résolu à lui dire la vérité. Il était sorti la veille au soir et pas rentré.

Je revins dans la journée, on ne l'avait pas revu. J'attendis une semaine. Il ne reparut pas. Alors je prévins la justice. On le fit rechercher partout, sans découvrir une trace de son passage ou de sa retraite.

~~Une visite minutieuse fut faite au château abandonné. On n'y découvrit rien de suspect.~~

~~Aucun indice ne révéla qu'une femme y eût été cachée.~~

L'enquête n'aboutissant à rien, les recherches furent interrompues.

Et, depuis cinquante-six ans, je n'ai rien appris. Je ne sais rien de plus.

Chapter 5

Visualising

Lui ? and *Apparition*

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Introduction

This final chapter will synthesise the findings of the experiment described in the previous chapter with the cognitive literary analyses in Chapters 2 and 3. The two texts used in this experiment were *Lui ?* and *Apparition* (1883), both written by Guy de Maupassant. Maupassant has been identified as one of the most successful writers of *contes fantastiques* by several scholars working with French *fantastique* fiction, such as Pierre-Georges Castex (1951), Tzvetan Todorov (1970), Marcel Schneider (1985), and Laurent Dubreuil (1999). While *Le Horla* is often discussed as Maupassant's most popular work, *Lui ?* and *Apparition* have both been included in various collections of Maupassant's *fantastique* texts. Examples of such collections include *Contes fantastiques complets* (Marabout 1984) and *La peur et autres contes fantastiques* (Larousse-Bordas 1999). As discussed in Chapter 4 (232), these two texts were selected after a series of pilot tests based on their length, the easy-to-manipulate ambiguously supernatural incident, and the differences in the source of the ambiguously supernatural incident. *Lui ?* tells the story of the a bachelor's incurable fear after he returns home one night, allegedly sees a man in his armchair, but finds nothing there when he reaches out to touch his shoulder. *Apparition* is told within a frame narrative by an elderly man, who, fifty-six years earlier, met an old friend whose wife had passed away. Upon going to his friend's old house to retrieve some papers, the man allegedly sees an apparition a woman in white and, upon her request, combs her hair. The woman leaves, and he never sees her or his friend again.

To create a useful basis for comparison with Chapters 2 and 3, this chapter will begin by presenting graphs of the Lancaster Norms (Lynott 2020) for *Lui ?* and *Apparition* as done for all the other corpus texts. The Lancaster Norms are a word bank which contains ratings between 0 and 5 for 40,000 words for perceptual and action-based modalities. Perceptual modalities include visual, auditory, haptic, gustatory, olfactory, and interoceptive modalities, while action-based modalities include foot-leg, hand, head, mouth, and torso movement. In Chapter 2, the norms were used to establish where a reader's visualisation might be heightened using perceptual strength, emotion-evoking writing,

kinaesthetic imagery, and decelerated kinaesthetic imagery. Two main ideas were also presented on what could cause a drop in vividness following the ambiguously supernatural incident: the reader's increased cognitive effort in understanding the ambiguously supernatural incident, and an absence the factors mentioned earlier in this paragraph which increase vividness during the ambiguously supernatural incident. Chapter 3 considered the contribution of auditory and haptic imagery towards heightening a reader's vividness of visualisation. This chapter will display graphs for the Lancaster Norm modalities per segment for *Lui ?* and *Apparition* (an explanation for how the graphs were created can be found on 108).

After any noticeable spikes and drops see in the Lancaster Norms graphs have been established, the main text experiment results for all four groups (*Lui ?* experimental, *Lui ?* control, *Apparition* experimental, *Apparition* control) will be compared to the visual modality from the Lancaster Norms for the two texts separately. The graphs presented in Chapter 4 (258-259) will be then compared in detail with one another as well as with the Lancaster Norms. As explained in Chapter 4 (257), the visual modality for perceptual strength is being compared against the experiment results because of the thesis's focus on visual imagery. The chapter will conclude with a discussion of what the experiment results suggest in relation to the various hypotheses presented.

Lui ?

The following graph presents the Lancaster Norms data per segment in *Lui ?.*

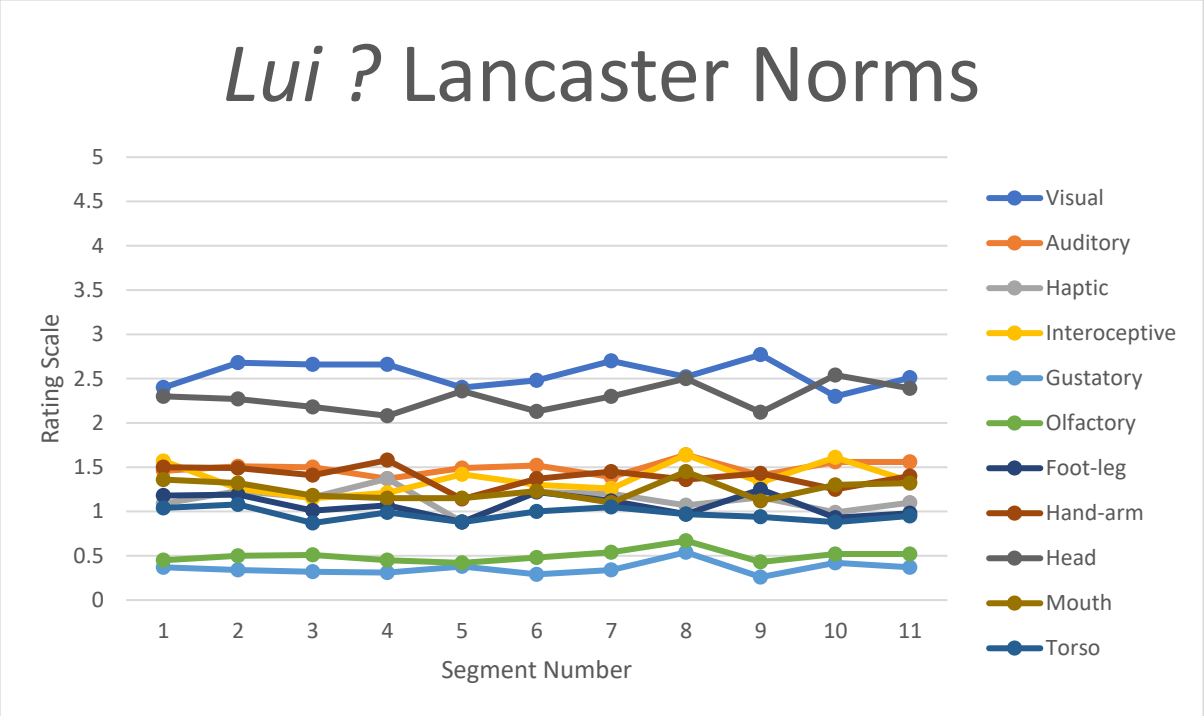


Figure 5(a)[30]

The first key point to note from this graph is that the visual and head modalities are notably higher than the other modalities. As discussed in Chapter 2(138), this trend is seen across the Lancaster Norms. The following table contains the average per modality of all the words in the norms:

[30] The descriptions for each segment number can be found in the Appendix to this chapter.

Auditory	1.51
Gustatory	0.32
Haptic	1.07
Interoceptive	1.03
Olfactory	0.39
Visual	**2.90**
Foot-leg	0.81
Hand-arm	1.45
Head	**2.28**
Mouth	1.26
Torso	0.82

Figure 5(b)

The high rating for both these modalities can be justified in their frequent relevance to the words in the norms. Most words have a visual component. As briefly mentioned in Chapter 2 (138), even words which rate highly on other modalities, e.g. telephone for the auditory, also rate highly for the visual, whereas highly visual words, e.g. mirror, do not rate highly on other perceptual modalities. It is more challenging to assess why the 'head' variable might be so highly-rated. However, the examples on Page 3 suggest that a significant variety of words in the norms were rated highly for the head modality; it is possible that more words per segment had a high rating for head compared to other modalities. Lynott et al acknowledge that among the perceptual modalities, 74% of the words are 'dominated by the visual', while in the action effectors, 67% of the words across the norms word bank are 'dominated by head action' (26). Any fictional text put through the Lancaster Norms, therefore, will always rate significanly higher on the visual and head modalities than the others. The averages of *Lui ?* for each modality, found in the following table, illustrate similar distinctions as seen in Figure 5(b).

Lui ? Perceptual Strength Average per Modality

Visual	2.55
Auditory	1.53
Haptic	1.13
Interoceptive	1.38
Gustatory	0.37
Olfactory	0.50
Foot-leg	1.06
Hand-arm	1.40
Head-mean	2.32
Mouth-mean	1.29
Torso mean	0.97

Figure 5(c)

As mentioned previously, Lynott et al draw a distinction between what they call perceptual modalities (visual, auditory, olfactory, gustatory, haptic, interoceptive) and action effectors (foot-leg, hand-arm, mouth, head, torso). To have a closer look at *Lui ?*, Graph 1 will be split into perceptual modality and action effector graphs, and the two will be considered separately.

Lui ?: Perceptual Modalities

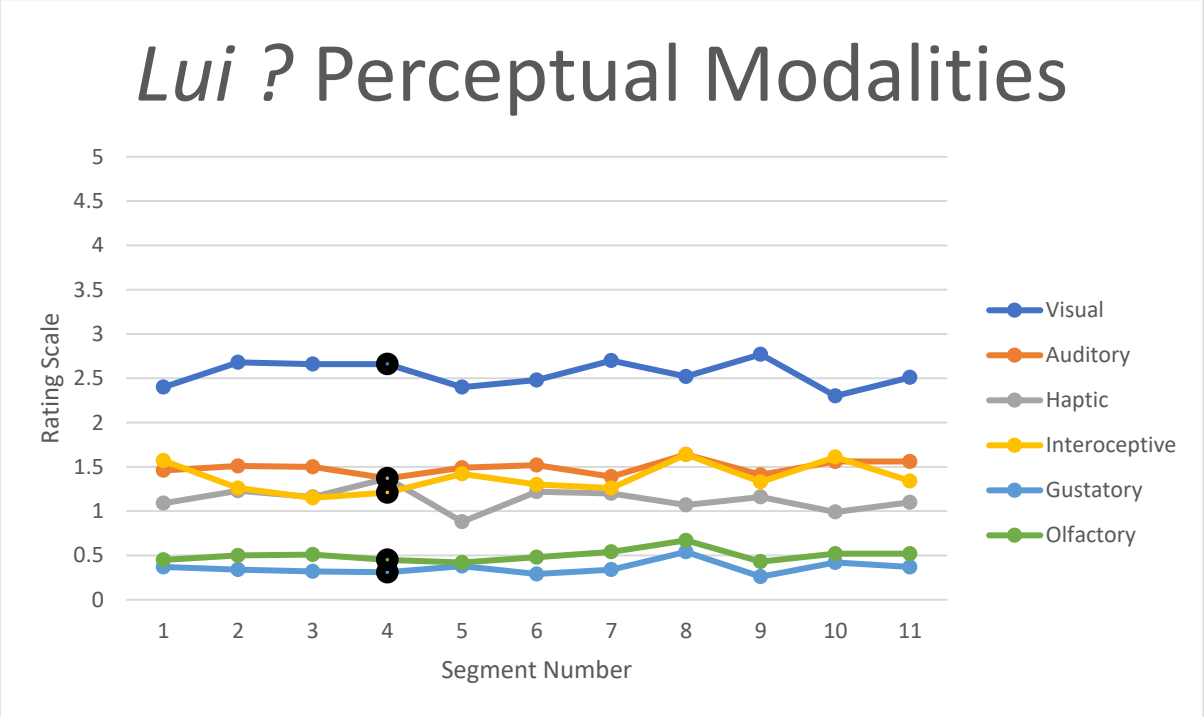


Figure 5(d)

As seen in Graph 2, there is very little variance across the perceptual modalities in *Lui ?* longitudinally. The visual has a small spike a Point 9 (2.77 compared to the visual modality average of 2.55), which describes the narrator returning home from the theatre the day after the *fantastique* incident and worrying[31]. There is also a notable drop at Point 10 (2.30) which describes him worrying about seeing the mysterious figure again. Lynott et al (2020) noted a weak negative correlation between the visual and the interoceptive in their word bank (0.33) (109). A stronger and statistically significant ($p<0.05$) negative correlation was found between the interoceptive and the visual in *Lui ?* (-0.73). Words rating highly on the interoceptive modality are usually to do with feelings and sensations (see Figure2(b) on 101). The interoceptive modality spikes at the three points which focus primarily on the

[31] A table of descriptions for each segment can be found in the Appendix to this chapter.

narrator's thoughts and feelings; 5, 8, and 10 (Surprised and justifying hallucination right after the key segment, the next day, being afraid ever since). These points rate lower on the visual modality. Visualisation by readers could be more difficult to evoke at these points, and thus possibly less vivid.

Chapter 3 uses Lima et al's (2015) definition to describe auditory imagery as 'a complex process by which an individual generates and processes mental images in the absence of sound perception – "hearing with the mind's ear"' (4638). The chapter also considered the role played by auditory imagery in *La Vision de Charles XI*, *Inès de Las Sierras*, and *La Vénus d'Ille* using the Lancaster Norms. These three corpus texts were especially considered because of their prominent use of dialogue and sound within the text as well as during the ambiguously supernatural incident (e.g. the vocal prophecy of the supposed ghosts in *La Vision de Charles*, Inès's cry of "Me voilà !" (27), the heavy footsteps heard on the staircase the night before Alphonse's death in *La Vénus d'Ille*). Such moments were considered to heighten vivid visualisation, especially when found within the ambiguously supernatural incident, both because they might contribute to visual perceptual strength and emotion-evoking writing. Though the visual and head modalities were consistently higher in the other corpus texts as in *Lui ?*, some spikes were found in the auditory modality in these texts, for example, in the segment describing the footsteps in *La Vénus d'Ille* (1.83), or in segments containing conversations between non-*fantastique* characters in both *La Vision des Charles* (1.90) and Inès de Las Sierras (1.94). In comparison, the auditory modality graph for *Lui ?* has almost no fluctuation from the average noted in Table 2 of 1.51. This is likely because the character has no conversation with any other character and noise does not feature prominently in the key incident or elsewhere in the text. The olfactory and gustatory modalities are similarly flat, however both spike very slightly at Point 8 because of the mention of the word 'dine/diner' (rated 2.4 and 2.45 for the olfactory and gustatory modalities respectively, as compared to the average across *Lui ?* of 0.39 and 0.32).

Chapter 3 revealed spikes in the Lancaster Norms' haptic modality in other *fantastique* texts. In *La Vénus d'Ille,* for example, the haptic modality was rated at 1.55 in the segment following the key

moment, describing Alphonse's corpse (Figure 3(m), 202). 1.55 is not a particularly high rating out of the possible maximum of 5, but it is higher than the other points of *La Vénus d'Ille*, as well as the haptic modality average across the Lancaster Norms (1.07). The haptic modality average across *Lui ?* is the same as the average across the Lancaster Norms word bank at 1.07. However, there is an increase in the haptic modality during the ambiguously supernatural incident (from 1.15 to 1.37). This is also the highest haptic rating for the entire text, likely as there are very few haptic text descriptions in *Lui ?* with the exception of the line, 'Je rencontrai le bois du siege !' (Maupassant 873). There is also a notable drop below 1 in the haptic modality at Segment 5 in Graph 5(d), which refers to the narrator describing his fear right after the key moment. The segment focuses entirely on the narrator's thoughts and contains no haptic-related text cues, while the other segments still mention objects and verbs which might relate to the haptic.

The conclusions reached regarding the vividness of a reader's visualisation in Chapters 2 and 3 were done on the basis of the Lancaster Norms as well as key ideas of how emotion-evoking writing, kinaesthetic imagery, and decelerated kinaesthetic imagery should heighten vivid visualisation in the *fantastique*. Figure 5(d) suggests that perceptual strength at least would not be a contributor towards heightening vividness in the key segment. However, as mentioned for other corpus texts in Chapter 2, the role of emotion-evoking writing when reading the words in a sentence cannot be considered in the Lancaster Norms; the reader's vividness of visualisation could still increase at the key segment because of it. The visual modality of the Lancaster Norms does however provide support for a possible hypothesis for the drop in vivid visualisation following the key segment, which could occur because of the lack of visually perceptually strong words and highly interoceptive nature following the introduction of the ambiguously supernatural incident. Based on the analysis in Chapter 2, it is likely that the switch from descriptive emotion-evoking writing to bodily expressions of emotion-evoking writing as the narrator describes his fear also contributes towards the drop. The other contributor towards vivid visualisation was suggested to be movement; the action effector modalities in the Lancaster Norms will now be considered with *Lui ?*.

Lui ? : Action Effectors

The following graph contains the action effector modalities for the different segments in *Lui ?*.

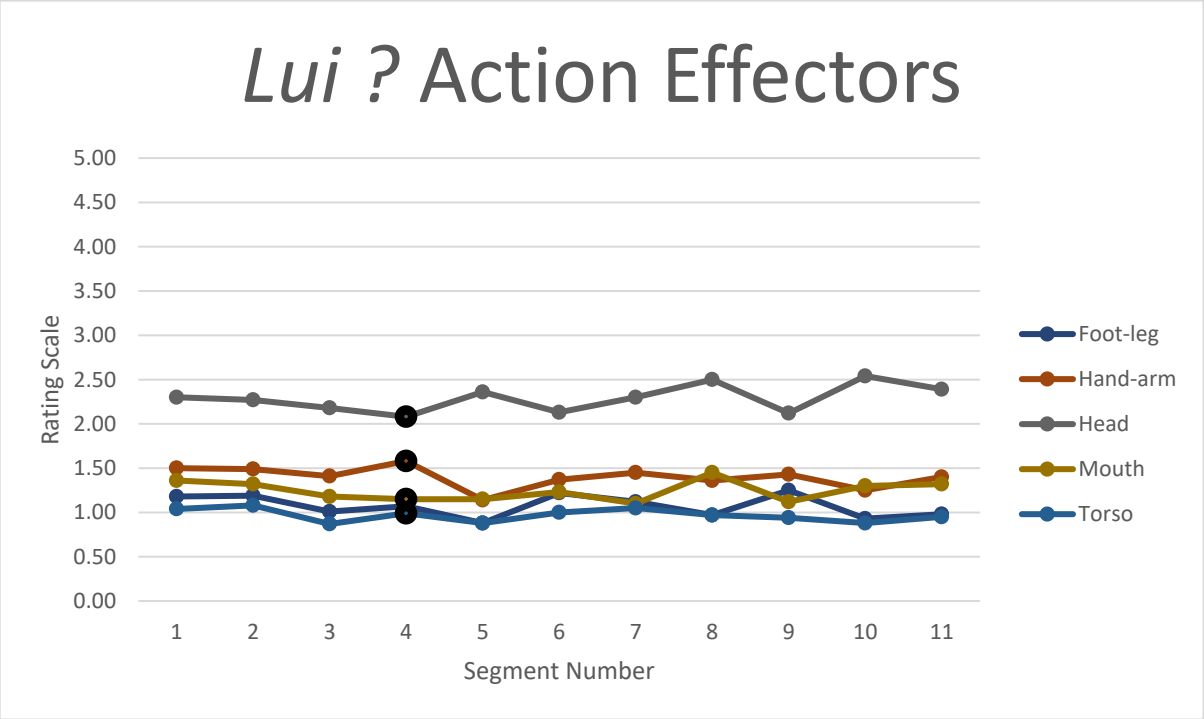


Figure 5(e)

Lynott et al (2020) found a strongly positive correlation between the hand-arm and haptic modalities (5). This was also reflected in Lui ?: a statistically significant ($p<0.05$) strong positive correlation of 0.86 was found between the haptic and hand-arm modalities in Graph 1. Similar to the haptic, there is therefore a rise during and drop right after the key segment in the hand-arm modality. It is important to note here that while there are very few haptic and hand-arm words overall in Lui ? it features significantly in the key moment, as the narrator reaches out for the man he claims to see in the chair, who then vanishes: 'J'avançai la main pour lui toucher l'épaule !…Je rencontrai le bois du siège ! Il n'y avait plus personne. Le fauteuil était vide !' This is also reflected in the norms with the high-point of the hand-arm movement across the text being Point 4 at 1.58. The positive correlation between the haptic and the visual both across the norms (Figure 3(a), 174) and in *Lui ?* (0.67), as well as the positive correlation between the haptic and the hand-arm modality encourages the idea that

haptic and kinaesthetic imagery is easier for the reader to evoke during the ambiguously supernatural incident than in the rest of the text. Small spikes are also seen in the foot-leg modality at Points 6 and 9, both of which contain movements such as the narrator getting ready for bed and being worried while walking home the next day; these could also contribute towards a vivid visualisation of these moments.

Similar to the interoceptive modality discussed earlier (302), the head modality is therefore seen to spike at Points 5, 8 and 10, which mainly refer to the narrator's thoughts and feelings. The positive correlation found between the gustatory and mouth modalities by Lynott et al (2020) was also reflected in *Lui?* with the only notable spike for the mouth action effector being at Point 8, which mentions the word 'dine/dîner' (rated 4.4 on the Lancaster Norms). There were no notable changes seen for the torso.

Physical movement in *Lui ?* is minimally described, but nonetheless plays a key role in the *fantastique* incident. The heighted hand-arm action might make the ambiguously supernatural incident easier for the reader to visualise. Additionally, as discussed in Chapter 2 (127), kinaesthetic imagery likely contributes towards heightening a reader's vivid visualisation. The focus on a small movement in *Lui ?* of the narrator reaching out to touch his friend's shoulder likely increases vivid visualisation here. Having described the Lancaster Norm patterns across *Lui ?*, the next section will now introduce the main text results for comparison against the visual modality.

Lui ? : Main Text Results

The following graph documents the visual modality of the Lancaster Norms as in Graph 1, now with the experiment results.

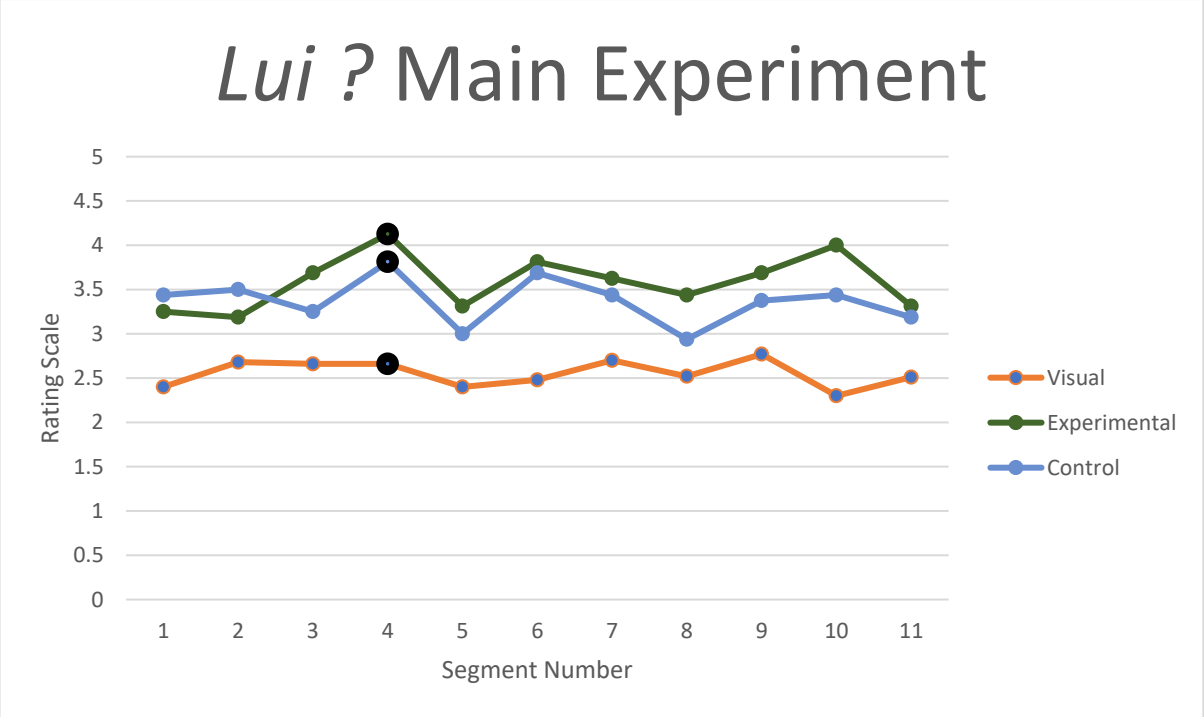


Figure 5(f)

Disparity between the visual modality and the results

An important and noticeable difference between the two added lines indicating the experimental and control groups are their higher ratings as compared to the Lancaster Norms. The following table illustrates the difference in maximum and minimum values as well as range between the experimental group, control group, and the visual modality.

	Experimental	Control	Visual Modality
Maximum Value	4.125	3.8125	2.77
Minimum Value	3.19	2.94	2.3
Range	0.93	0.87	0.47

Figure 5(g)

As seen in Figure 5(g), the *minimum* values for both the experimental and control groups are larger than the *maximum* in the visual modality average from the Lancaster Norms. Chapter 1 illustrated the value of baseline visualising ability in relation to how vividly one can visualise fiction. The

VVIQ revealed participants in both groups of *Lui ?* and *Apparition* had very similar, average baseline visualising abilities; in *Lui ?*, the experimental group's average score was 59.81 out of the total possible 80), while the control group's average was 54.63. In *Apparition*, it was 60.06 for the experimental group, and 59.25 for the control. As mentioned in Chapter 1 (52), Zeman et al (2020) suggested that participants scoring between 16 and 23 on the VVIQ should be considered to have aphantasia, while those scoring between 75 and 80 could have hyperphantasia. Participants of both *Lui ?* and *Apparition* should therefore be considered as average visualisers who have neither excessively high nor low vividness when visualising.

The disparity seen in Table 3 between the Lancaster Norms visual modality rating and the two groups from the experiment with average visualising abilities suggests the role played by putting the words from the Lancaster Norms into a sentence. As mentioned earlier several times, when read in a sentence, the words are likely to elicit a more complex multimodal response. Chapter 2 nonetheless argued that perceptual strength offers an idea of a reader's minimum vividness of visualisation (107). This argument was founded on the idea that the higher a word's perceptual strength, the easier it should be to bring a visual mental image of the object to mind. However, the influence of perceptual strength on vividness was rarely reflected in the experiment results. There was a statistically significant ($p<0.05$) null correlation (0.07) found between the visual modality and the participants' vividness ratings in the experimental group and a statistically significant ($p<0.05$) weak positive correlation (0.23) found between the visual modality and the control group. This then suggests that perceptual strength is likely not the most important component in influencing vividness of visualisation when reading the *fantastique*. The disparity between this expectation set out by Chapter 2 and the results will be further discussed in relation to *Apparition* (316).

The main text graphs for all groups will always focus on the visual modality average per segment from the Lancaster Norms for comparison with the participants' vividness ratings per segment when reading the main text. However, there were some notable disparities between the correlations

of the other modalities and the experimental and control groups in *Lui ?*. While the experimental group was seen to have very little correlation with any of the Lancaster Norm modalities, the control had some strong positive and negative correlations. All correlations were found to be statistically significant. The following table summarises the various correlations. Strong correlations (above 0.5) have been highlighted.

	Experimental Correlation	Control Correlation	Visual Correlation
Visual	0.07	0.23	
Auditory	-0.31	-0.58	-0.43
Haptic	0.39	0.76	0.68
Interoceptive	-0.20	-0.43	-0.62
Gustatory	-0.27	-0.64	-0.35
Olfactory	-0.09	-0.42	-0.01
Foot-leg	-0.01	0.60	0.46
Hand-arm	0.11	0.61	0.66
Head-mean	-0.31	-0.62	-0.46
Mouth-mean	-0.42	-0.32	-0.55
Torso mean	-0.30	0.45	0.19

Figure 5(h)

All correlations in the above figure were found to be statistically significant ($p<0.05$). It is worth noting that these correlations might not be particularly important given the disparity between the visual modality and the reader's vividness of visualisation. Possibly, if a reader were asked to rate the segments of *Lui ?* for vividness in the different modalities, the responses might be different. However,

it is striking to note how the control groups had much stronger positive and negative correlations with some of the modalities, though it is difficult to determine what caused such a disparity.

A key feature to note from Figure 5(h) is that though the strength of the correlations differs across the three groups, the correlations always occur in the same direction as found by Lynnot et al (2019) between the visual and other modalities. For example, as found by Lynott et al (2020), the auditory and interoceptive is negatively correlated with the visual modality across all groups, and the haptic is positively correlated. The similarities here suggest that visual perceptual strength does have an influence on the participants' visualisation of the text, even though it is likely affected when the words are read in sentences and paragraphs.

Spikes

One of the principal hypotheses mentioned in Chapter 4 (Hypothesis 2, Figure 4(a), 228) was that there would be an increase in the vividness of visualisation for participants in both the experimental and control groups in the key segment, though the increase should be higher for the experimental group. The rationale for this was the role played by perceptual strength, emotionally evocative writing, kinaesthetic imagery, and multimodal imagery in increasing vivid visualisation. The key moment is Point 4. The text for this moment reads as follows.

> Mon ami, dont je ne voyais que les cheveux, s'était endormi devant mon feu en m'attendant, et je m'avançai pour le réveiller. Je le voyais parfaitement, un de ses bras pendant à droite ; ses pieds étaient croisés l'un sur l'autre ; sa tête, penchée un peu sur le côté gauche du fauteuil, indiquait bien le sommeil. Je me demandais : « Qui est-ce ? » On y voyait peu d'ailleurs dans la pièce. J'avançai la main pour lui toucher l'épaule !...
>
> Je rencontrai le bois du siège ! Il n'y avait plus personne. Le fauteuil était vide ! (Maupassant 873)

Both the experimental and control group were presented with this passage at Point 4, with the only difference being the use of the phrase, 'Dans ce rêve' to introduce the segment in the control group text. As discussed in Chapter 4, it was important to alter the circumstances surrounding the ambiguously supernatural incident rather than alter the writing of the incident to prevent the experimental and control texts from being too different from one another and unfairly affecting participant response (233). The original text of *Lui ?*, read by the experimental group, therefore suggested that the incident described above occurred to the narrator in the assumed to be ordinary storyworld, while those in the control group read this incident as occurring within the narrator's dream.

Both the experimental and control group showed spikes at the key segment. However, the increase was not higher for those reading the original text: the experimental group's average vividness increased by 0.44 while the control group increased by 0.56.

Four ideas were presented in Chapter 2 for heightened vividness during ambiguously supernatural incident in a *fantastique* text: high perceptual strength, high emotion-evoking writing, high kinaesthetic imagery, and high deceleration of kinaesthetic imagery. The understanding of perceptual strength was based on the Lancaster Norms (2020) and Desrocher's (2009) word bank. The change in the Lancaster Norms is non-existent (stays at 2.66). This suggests that in terms of perceptual strength, there is not element of text description that is easier for the reader to visualise during the *fantastique* moment. The lower number of words in Desrocher's French-language norms (3000 compared to the 40,000 in the Lancaster Norms) make it difficult to consider perceptual strength across the key segment and whether it varies. However, as mentioned in the introduction (40), studies such as Krasny and Sadoski (2008) and Rofes et al (2017) suggest that there is a positive correlation between the perceptual strength of words in different languages. Based on the norms, perceptual strength therefore does not seem to be a contributing factor to the heightened vividness reported by participants reading *Lui ?* in both the experimental and control conditions. In contrast, both kinaesthetic imagery

and emotion-evoking writing are likely have been more significant contributors to vividness in this segment.

The analysis in Chapter 2 drew a distinction between object-focused and movement-focused text description (132-133), arguing that the latter should be visualised more vividly. As mentioned earlier in this chapter, there is minimal movement throughout *Lui ?*. The lack of physical movement in the entire text however is likely to emphasize the movement more in this key incident of the narrator's hand reaching out for his friend and unexpectedly encountering 'le bois du siège'. While it is impossible to untangle the contribution of emotion-evoking writing from the kinaesthetic and haptic imagery here, it is likely that all three contribute towards heightening the reader's vividness of visualisation.

The control group spiked more in vividness for the key segment than the experimental group. There could be a few reasons for this. One possibility is an unsuccessful manipulation of the control text which did not eliminate the supernatural. However, some of the open responses indicate that the differences between the two texts was noticeable. While no participants in the experimental group explicitly mentioned the *fantastique* moment when asked to describe their experience reading the text, one participant mentioned re-reading the text 'vers le milieu, après la première nuit où l'homme voit le *fântôme*', suggesting they might have considered the key moment in *Lui ?* to contain a supernatural incident. To compare, a participant from *Lui ?*'s control group who also reported re-reading the key segment twice described it as, 'Quand il voit *son ami* (dans l'obscurité) allongé sur le canapé'. Though possibly coincidental, the difference in description of the same segment from the two groups suggest that the manipulation of the control text was likely to have been successful, and the control text was processed as more ordinary as a result. This is further encouraged by the open response of certain responses in the control group. A number of participants used phrases to suggest that they had perceived the originally ambiguously supernatural incident as entirely ordinary when placed within a dream context. Examples include, 'Une *projection* de la peur de sa propre *solitude'*, 'On

ressent très bien le côté obsessionnel et maladif enver ses *rêves*', 'enfin, quand il évoque son *rêve*…', and 'je n'aime vraiment pas quand des gens racontent leurs *rêves'*[32].

The previous paragraph establishes that despite the recognisable difference between the two conditions based on the open responses, the control group spiked more than the experimental group at the key segment. A steady rise is seen in the experimental group from Point 2 onwards in Figure 5(f) (307), describing the narrator being outside. In comparison, the control group's spike is slightly sharper, with little fluctuation before the *fantastique* incident. It is worth noting that the maximum text manipulation occurs before the *fantastique* incident, with words and phrases alluding to the narrator being haunted by his dreams rather than the ambiguously supernatural incident being mentioned eight times (examples can be found in Figure 4(b) in Chapter 4, (235)). Additionally, while the experimental and control group have a moderately strong positive correlation throughout the text (0.57), meaning that vividness ratings from participants in both groups largely rise and fall in the same segments, they have a very strong negative correlation in the first three segments (0.99), and then a very strong positive correlation for the rest of the text, including the key segment (0.86). At Point 3, for example, just before the *fantastique* incident, the experimental group reports an increase in vividness of visualisation by 0.50, while the control group reports a drop in vividness of 0.25. It is possible that the text manipulations therefore had an influence on the differences in vividness ratings here. One hypothesis is that the idea of the text being in a dream might have reduced emotional response and possibly even interest for control group participants, which could in turn have affected their vividness of visualisation. This idea is further encouraged by the slight drop in vividness in the control group at Segment 3 when the dream begins and the narrator is returning home *in* the dream, compared to the rise in vividness in the experimental group, which just describes the narrator returning home. The effect of the text manipulation in the control group is further reflected in the other spikes found in Figure 5(f).

[32] All my Italics

An important feature of Figure 5(f) is that the key segment is not the only spike in both groups. Both the experimental and control group also spike at Point 6, which describes the narrator getting ready nervously for bed. There is also an additional spike in the experimental group at Point 10, which describes the man being afraid ever since the incident. Point 6 encourages a hypothesis for a positive relationship between the reader's anticipation and vividness, as also observed particularly with the experimental group before the key segment. However, as seen on the visual Lancaster Norms line, Point 10 has very low visual perceptual strength as it contains many words with high-interoceptive ratings (302). The heightened vividness here in spite of the low perceptual strength encourages new hypotheses about the role played by interoceptive words when reading a text. While interoceptive words might not offer much visual perceptual strength, it is likely that they contribute to the emotional arousal in Segment 10. This was also suggested by some of the open responses from *Lui ?*'s experimental group.

As mentioned earlier, while none of the participants referred to the ambiguously supernatural incident in their comments, a number of them mentioned how relatable the narrator's fear was. Examples include, 'Très belle description de l'angoisse, Rappelle des sensations et souvenirs à tout le monde', 'Histoire familière et proche de certains', J'ai beaucoup apprécié l'élan "d'adrénaline" ressenti', 'il me semble que je ressens les mêmes hallucinations que lui'. These examples from the experimental group suggest that the narrator's fear was a particularly noticeable feature in the original text. It is possible that the contribution of the interoceptive words to emotion-evoking writing contributed to heightening the reader's vividness of visualisation, three of the four participants quoted above, for example rated Segment 10 as 5 (out of a possible maximum of 5). To compare, only one participant in the control group wrote a similar comment relating to the narrator's fear, but mentioned having a personal connection to the story, 'Je pense que je l'ai ressenti si fortement parce que j'ai aussi peur du noir et j'ai vécu des expériences similaires'. It is therefore possible that the more-frequently noticed and perhaps more easily understandable (given the ambiguity of the supernatural incident) fear of the narrator in the experimental condition led to the heightened vividness in Segment 10.

The primary hypothesis of the thesis was that experimental group participants should have a larger range of vivid visualisation than control group participants, caused by a spike during the ambiguously supernatural incident, and a drop after. While the results in Graph 5(f) indicate that the vividness of visualisation reported by participants in the experimental spiked as expected and dropped after, the drop was not substantial enough to create the larger range that was expected, Additionally, the increase in vivid visualisation at the key segment for the experimental and control groups were more similar in the value they increased by than anticipated. The next section will consider the drops seen in vividness across *Lui ?*.

Drops

To support the range hypothesis, the experimental group was expected to report a drop in their vividness of visualisation when rating the segment following the key segment, and possibly at other points in the text. As seen on Graph 4, the drop does occur for both the experimental and the control group by the same amount (0.813). In Chapter 2, it was hypothesised that a lack of visually perceptually strong words might lower vividness. As seen in Figure 5(g), the next segment is lower in visual perceptual strength. Additionally, a key reason for the expected notable drop in vividness for the experimental group was that they might struggle to understand the ambiguity of the supernatural incident. The equal drop in both groups suggests however that this is not the case. Another drop occurs particularly in the control group at Point 8, when the narrator describes finally falling asleep after experiencing the dream twice, waking up, and going out the next day.

As suggested in relation to the spike, it is possible that there is a relationship between the reader's anticipation or interest in reading the segment and their vividness of visualisation. The segments at which participants displayed drops in vividness are often those which *follow* a segment containing a high point or significant suspense. This idea will be discussed further after the discussion relating to *Apparition*.

Apparition

As with *Lui ?*, *Apparition* will be discussed first in relation to all the Lancaster Norms.

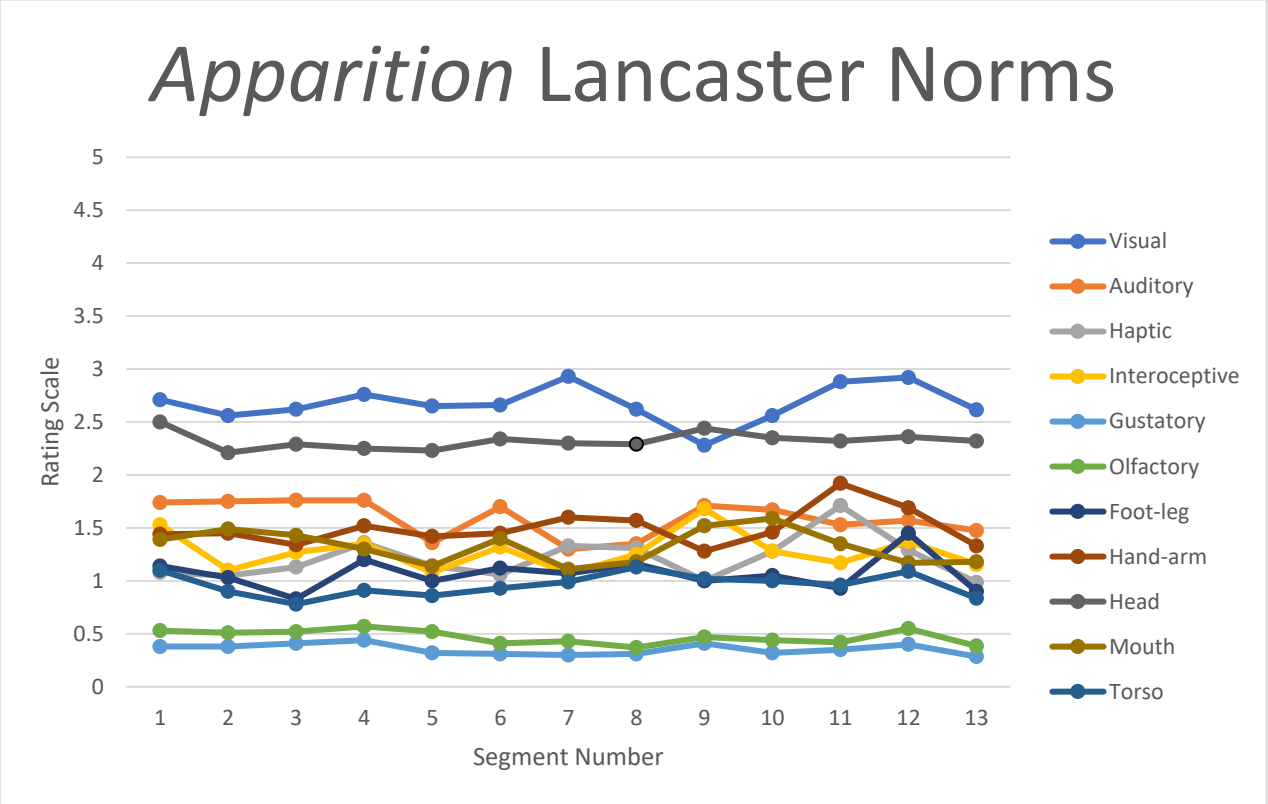


Figure 5(i)

Figure 5(i) suggests that, as was the case with *Lui ?* and across the Lancaster Norms word bank, the head and visual modalities are higher than the other modalities. The average value of each modality in *Apparition* can be found in the following table.

Modality	Average
Visual	2.66
Auditory	1.60
Haptic	1.19
Intero-ceptive	1.30
Gustatory	0.36
Olfactory	0.47
Foot-leg	1.06
Hand-arm	1.48
Head	2.33
Mouth	1.34
Torso	0.96

Figure 5(i)

The likely reasons for the disparity between the visual and head modality and the others have been discussed earlier (300). As with *Lui ?*, the perceptual modalities and action effectors will be considered separately across *Apparition*.

Apparition: Perceptual Modalities

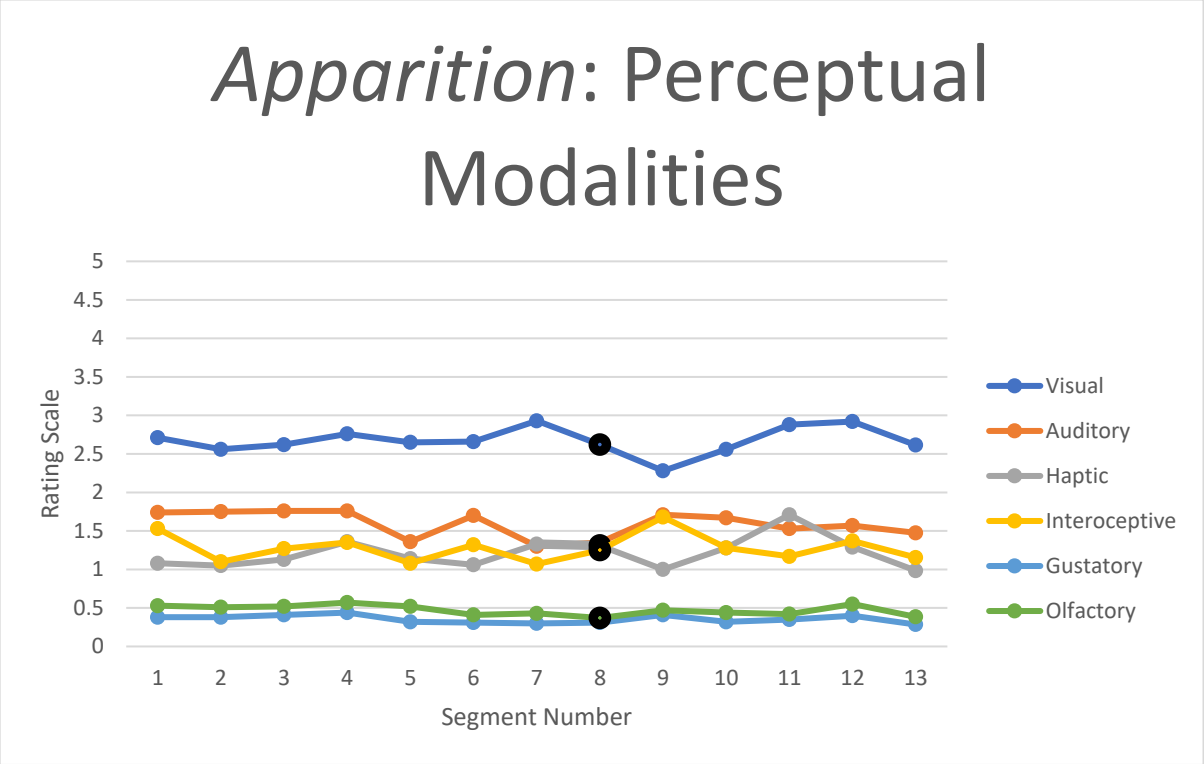


Figure 5(j)

As is the case with *Lui ?* (Figure 5(b), (302)), there are very few notable spikes and drops across the perceptual modalities of *Apparition* when mapped using the Lancaster Norms. There is a small spike at Point 7 which describes the unkempt house and contains words with high visual ratings such as window/fenêtre (4.579), sword/sabre (4.667), and armchair/fauteuil (4.706). There is additionally a notable drop at Point 9 right after the key segment, which describes the narrator's fear. This is similar to *Lui ?*, where the visual modality drops right after the key segment; in both cases, this is likely to be because the passage describes the narrator's thoughts and feelings regarding the key incident and does not contain many perceptually strong words. Following the drop at Point 9, there is a rise in the visual modality again at Point 11, describing the narrator combing the woman's hair. In the previous chapter, it was mentioned that *Apparition* was in part chosen for its significant use of visual, auditory, and haptic text descriptions as opposed to *Lui ?*. This is also reflected in the norms: after smaller spikes

at Points 4, 7, and 8 (narrator travelling to the house, arriving at the unkempt house, trying to find the packages), the haptic high point occurs at Point 11, which describes the narrator combing the woman's hair. Nouns such as hair/cheveux (3.78), cold/froid (4.11), and skin/peau (4.45), all rate particularly high on the haptic modality, considering that the average haptic rating across the norms is 1.07 out of a possible 5. It is also worth noting that as was found for *Lui ?* and across the Lancaster Norms, a statistically significant ($p<0.05$) positive correlation of 0.67 was found between the visual and haptic modalities.

The statistically significant negative correlation seen between the visual and interoceptive modalities across *Lui ?* and across the Lancaster Norms was found again in *Apparition* (-0.73, $p<0.05$). The spike in the interoceptive modality (1.68) following the key segment is particularly noticeable, containing words such as suffer (3.9 on the interoceptive modality), anxiety (4.47), and scare (4.47). The auditory modality had very little variance around the average of 1.60. Two notable drops were seen at Points 5 and 7, which refer to the narrator arriving at the chateau and the unkempt outdoors respectively. Similar to *Lui ?*, therefore, while the Lancaster Norms may not reflect a reader's vividness of visualisation, they do often reflect the events occurring in the text content.

Compared to *Lui ?*, *Apparition* has a lot more dialogue: there are four separate conversations between the narrator and his friend, the narrator and the gardener, and the narrator and the apparition which contain direct speech, and references to other conversations such at that between the narrator and his orderly (Segment 13). This is not really reflected in the norms; the average of the auditory modality in *Lui* is 1.51, compared to 1.60 in *Apparition*. However, this relates to another importance difference which is likely to be found between the norm ratings and how a text is read. The most highly-rated words on the auditory modality include 'barking' (5/5), 'noise (5/5), and 'talking (4.94). The Lancaster Norms might therefore correlate well to a reader's vividness of auditory imagery when a noise is being described. However, fiction very often contains examples of spoken dialogue, and research such as that by Yao et al (2011) suggests that direct speech might be 'heard' more vividly

than indirect speech. The direct speech in *Apparition* might similarly be 'heard' by the reader but not picked up by the norms as they do not explicitly contain auditory words. Any vividness created by the auditory imagery might however be reflected in the experiment results. There were no notable spikes in the gustatory and olfactory modalities, both of which were rated below 1 for every segment.

The Lancaster Norms for *Apparition* alone thus do not encourage hypotheses about heightened vividness in the key segment. It does, however, emphasise the more prominent role played by haptic imagery in the text as compared to *Lui ?* It is possible that the heightened visual perceptual strength of the *fantastique* source and the prolonged interaction with her would also heighten vividness in relation to visual perceptual strength. The next section will consider the possible effect of action effectors on vividness in *Apparition*.

Apparition: Action Effectors

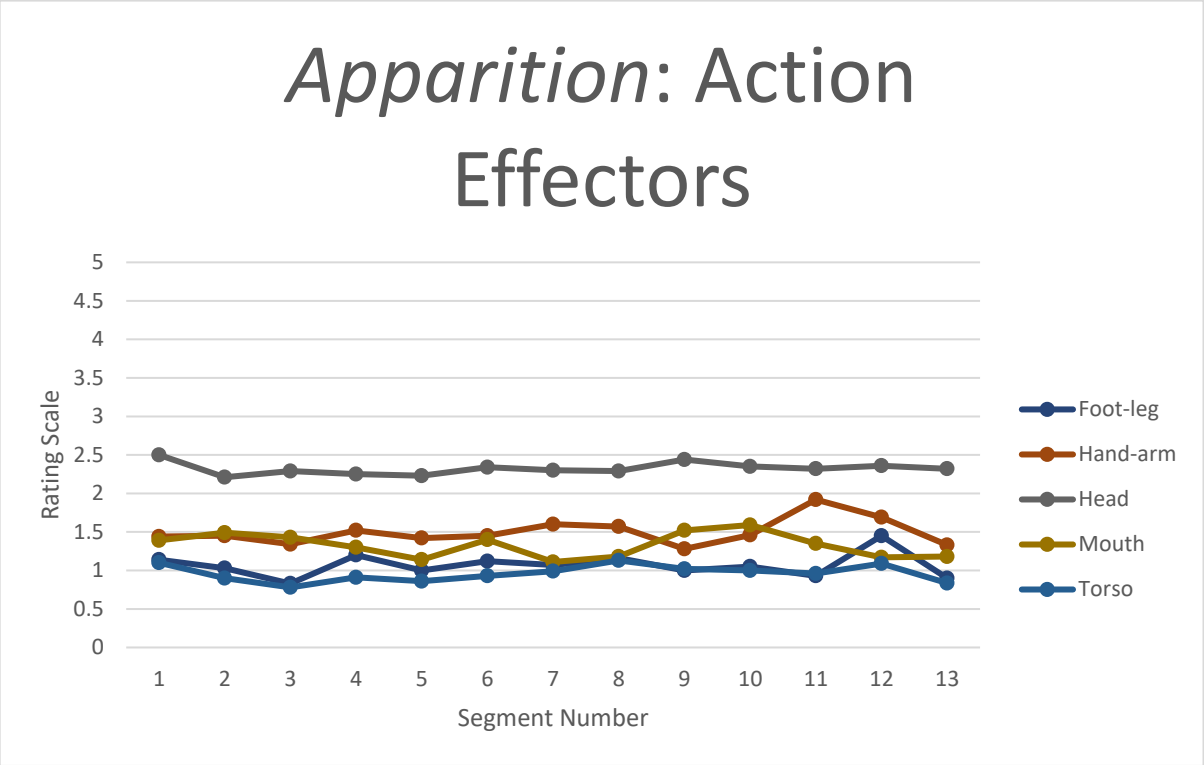


Figure 5(j)

Movement plays a more prominent role in *Apparition* than in *Lui ?*. There are numerous descriptions of movement, including the narrator travelling to the chateau (Segment 4), the narrator biting off leaves (Segment 4), the narrator walking through an empty house (Segment 6), searching for papers (Segment 8), and riding away from the house in a hurry after the ambiguously supernatural incident (Segment 12). Movement is also featured briefly in the key segment when the narrator turns abruptly to see the 'femme vêtue de blanc' (784) standing behind him.

Beside the slight dip at Point 3 when the narrator is eating breakfast with his friend, the foot-leg modality has very little variance in *Apparition*. There is however a notable spike at Point 12, when the narrator leaves the house right after the possibly supernatural woman does. Highly-rated foot-action words used in this passage such as run/courrir (4.96) and 'jump/sauter' (4.85) contribute to this spike. Mirroring the visual, a slight dip is seen in the hand-arm modality at Point 9, when the narrator

is describing his fear after seeing the apparition. The only notable spike occurs at Point 11 with the narrator combing the apparition's hair, likely caused by highly-rated hand-action words, e.g. comb/peigner (3.9), twist/tordre (3.39), and brush/tresser (3.63). The head and torso modalities had almost no fluctuation around their respective averages (2.33 and 0.96). The mouth-main modality was strongly correlated with the auditory modality. It was seen to rise particularly in two segments with dialogue with the gardener and the apparition (6 and 10).

As was the case with the key segment in *Lui ?* (Figure 5(e), 305), the notable spike in the hand-action effector at Point 11 correlates to haptic and visual perceptual strength. This could possibly also heighten vivid visualisation in that segment. Though there is more movement overall in *Apparition*, it features less prominently in the key segment: perceptual strength and emotion-evoking writing can thus be hypothesised to be more key contributors to the expected spike.

Apparition: Main Text Results

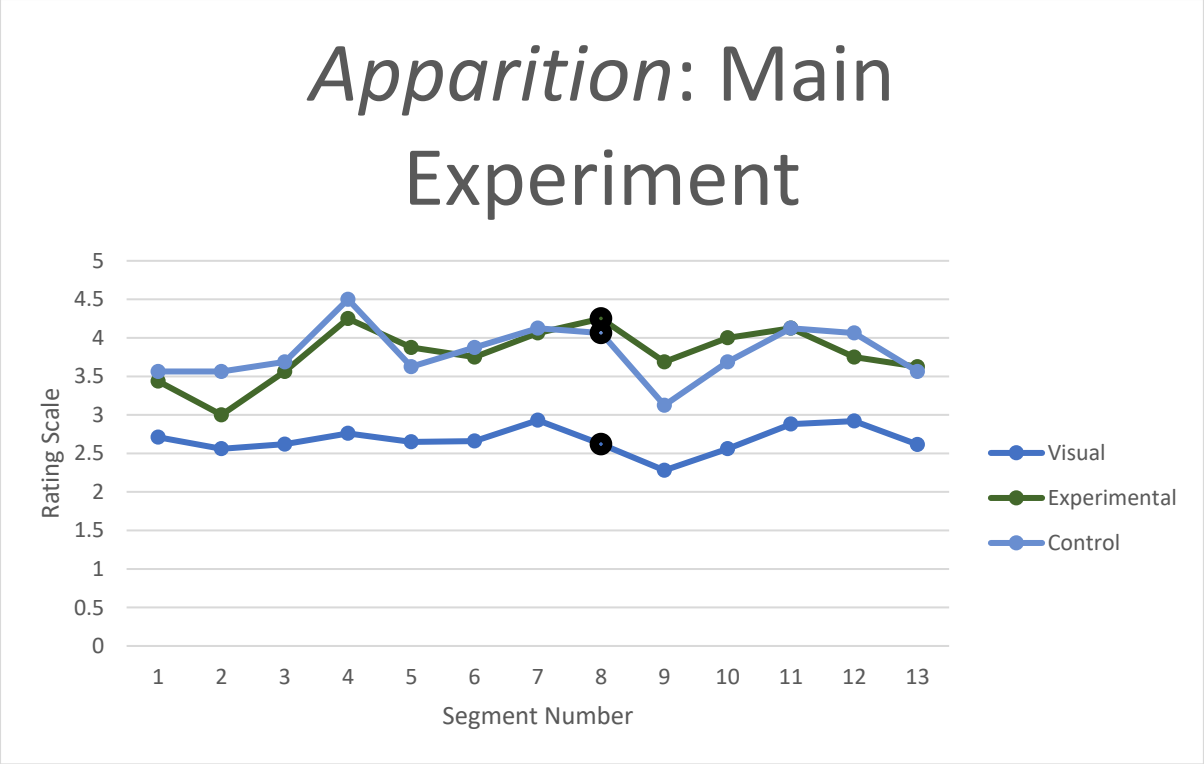


Figure 5(k)

As was the case with *Lui ?*'s experiment results in Graph 5(f), the participant ratings from both groups in the experiment are significantly higher than the visual modality of the Lancaster Norms. The maximum and minimum values for the three groups as well as the range can be seen here.

	Experimental	Control	Visual Modality
Maximum Value	4.25	4.5	2.93
Minimum Value	3	3.125	2.28
Range	1.25	1.375	0.65

Figure 5(l)

The explanation relating to likely differences in processing words and sentences is also likely to apply here. To investigate further disparities, the correlations of every modality with *Apparition* can be seen here. As was the case with *Lui ?*, all correlations were found to be statistically significant.

	Experimental	Control	Visual Correlation
Visual	0.35	0.78	
Auditory	-0.48	-0.23	-0.37
Haptic	0.68	0.73	0.64
Interoceptive	-0.08	-0.34	-0.43
Gustatory	-0.20	0.04	-0.11
Olfactory	-0.29	0.06	0.12
Foot-leg	0.19	0.44	0.40
Hand-arm	0.47	0.69	0.76
Head	-0.11	-0.39	-0.17
Mouth	-0.38	-0.46	-0.60
Torso	0.25	0.12	0.13

Figure 5(m)

As with *Lui ?* (Figure 5(h), 309), all correlations in Figure 5(m) were found to be statistically significant. The first key feature to note from Table 7 is that, unlike *Lui ?*, there is a stronger positive correlation between the visual modality and experimental group, and a strong positive correlation between the experimental and control group. One possible reason for this could be that *Apparition* simply has components higher in visual perceptual strength which then contribute to vividness. The average across the visual modality of *Apparition* was 2.66, whereas it was 2.55 for *Lui ?.* While *Apparition* is therefore slightly higher in perceptual strength, the difference of 0.11 does not seem enough to cause the disparity alone in correlations between the two texts, particularly in the case of the control; there are likely to be other contributing factors.

There are fewer stronger correlations between the experiment results and the other modalities in Table 7, unlike in *Lui ?*. All correlations however, go in the same direction as the relationship between the visual modality and the Lancaster Norms. The only exceptions found are between the control and gustatory modalities (negligible correlation of 0.04) and the experimental and the olfactory (negative correlation of -0.29). In this case, both the experimental and control group have a stronger positive correlation with the haptic modality. As with *Lui ?*, the spikes and drops will be discussed in *Apparition*.

Spike

As indicated by Figure 5(k), there is more fluctuation of vividness in *Apparition* than in *Lui ?*. A point of particular interest is Segment 4, which describes the narrator travelling to the house and feeling happy. As seen on Figure 5(k), this is the high point for vividness in the text in both the experimental and control groups, equal to the key segment in the experimental group, and higher than the key segment in the control group. The text of this segment reads as follows:

> Je le quittai vers une heure pour accomplir ma mission.

> Il faisait un temps radieux, et j'allais au grand trot à travers les prairies, écoutant des chants d'alouettes et le bruit rythmé de mon sabre sur ma botte.
>
> Puis j'entrai dans la forêt et je mis au pas mon cheval. Des branches d'arbres me caressaient le visage ; et parfois j'attrapais une feuille avec mes dents et je la mâchais avidement, dans une de ces joies de vivre qui vous emplissent, on ne sait pourquoi, d'un bonheur tumultueux et comme insaisissable, d'une sorte d'ivresse de force. (Maupassant 781)

While this segment rates more highly on the visual modality (2.76) than the average across the text (2.55), the difference in perceptual strength of the standalone words is not large enough to suggest that it is the sole contributor to the heightened vividness found in the experiment. This passage does however have text descriptions of physical movement as well as literal emotion-evoking writing (120). The strong expressions of joy expressed by the narrator combined with his physical actions, 'j'attrapais une feuille avec mes dents et je la mâchais avidement, dans une de ces joies de vivre' seem to have created particularly vivid images for the reader. One open response, explicitly mentioned the sentence above as an example of vivid mental imagery, writing, 'Les descriptions corporelles et visuelles sont évocatrices, elles suscitent facilement les sensations décrites (peur, sentiment d'effondrement, flot de lumière, cheveux enroulés autour des boutons, feuilles mâchouillées)'.

In comparison to Point 4, the expected key segment did not spike in both the experimental and control groups as predicted. Overall, there was a stronger correlation between the experimental and control groups in *Apparition* (0.66). However, this correlation was not found to be statistically significant (0.92). There is a notable difference found at the key moment between the groups: while the vividness of the experimental group did rise to match the vividness rating of Point 4 (4.25), the vividness actually dropped for the control group from the previous point (4.125 to 4.06). The text for the key segment in *Apparition* reads as follows.

> Je m'écarquillais les yeux à déchiffrer les suscriptions, quand je crus entendre ou plutôt sentir un frôlement derrière moi. Je n'y pris point garde, pensant qu'un courant d'air avait fait remuer

> quelque étoffe. Mais, au bout d'une minute, un autre mouvement, presque indistinct, me fit passer sur la peau un singulier petit frisson désagréable. C'était tellement bête d'être ému, même à peine, que je ne voulus pas me retourner, par pudeur pour moi-même. Je venais alors de découvrir la seconde des liasses qu'il me fallait ; et je trouvais justement la troisième, quand un grand et pénible soupir, poussé contre mon épaule, me fit faire un bond de fou à deux mètres de là. Dans mon élan je m'étais retourné, la main sur la poignée de mon sabre, et certes, si je ne l'avais pas senti à mon côté, je me serais enfui comme un lâche.
>
> Une grande femme vêtue de blanc me regardait, debout derrière le fauteuil où j'étais assis une seconde plus tôt. (784)

The text in this key segment was not changed at all. The control text was altered earlier (Points, 1 and 3) to mention that the woman was mentally ill and living in the house, rather than deceased (as was the case in the original text). While there was a slight spike in the experimental condition, the increase of 0.19 was a lot less than it was in *Lui ?*'s experimental condition 0.44. In the control, as evident from Graph 8, the key segment actually had a slight drop of 0.06 in vividness from the previous point.

It is possible that the hypothesis for the spike at the key segment was less supported in *Apparition* in part because of its predictability. In comparison to *Lui ?*, a number of participants allocated to *Apparition* expressed finding the story predictable in their open responses. In the experimental group, a participant wrote, 'un certain amusement car c'est tres previsible; tres "19e siecle" en tout cas mais habilement tourne'. Another in the control group similarly wrote, 'impression d'avoir déjà lu ce texte et j'ai tout à fait envie de lire autre chose'. It is possible that as this participant was in the control condition, they had perhaps read the original story. However, other comments also similarly pointed that the text began in a "manière traditionnelle" and contained the traditional image of the "Dame Blanche". As discussed in Chapter 1 (67), accurate predictions are more likely to heighten rather than lower vivid visualisation because the accurate visual imagery from memory of the text is combined with an emotional response similar to a first reading. However, as suggested by the two

comments mentioned earlier in this paragraph, it is possible that predictive reading when not desired can lower the enjoyment of and anticipation within a text. This then in turn could have an influence on vivid visualisation. Both these participants for example had no change in vividness ratings between the point before the key segment and the key segment. The hypothesis regarding a spike in the key segment (Hypothesis 2, Figure 4(a), 228) was therefore less supported by *Apparition* than in *Lui ?*, though the experimental group did still show a slight spike in Segment 8. The drop following the key segment was seen in both groups but was particularly noticeable for the control group.

Drop

As hypothesised, a slight drop is seen following the key segment in the experimental group. However, there are two very noticeable drops in vividness at different points in the experimental and control groups. In the experimental group, it occurs at Point 2 (Figure 5(k), 322) which describes the narrator's friend asking him to visit his old house and find some letters for him. In the control group, this occurs at Point 9, right after the key segment, in which the narrator is describing his fear.

Point 9 is the lowest point of vividness in the control group and refers to the narrator's feelings right after the key segment. As mentioned in relation to *Lui ?* which also demonstrated a similar drop after the key incident, it is possible that there is a relationship to be found between a loss of interest and anticipation and a drop in the readers' vividness of visualisation. The participants might see the key segment as the resolution to some kind of anticipation built up from the beginning of the story. This is also suggested by the word 'suspense' being used in six open responses across *Apparition*. Once the key segment is reached then, it is possible that the participant loses some interest in the story. This is perhaps particularly true in a story which encourages the reader to correctly predict a suspense-ful event, as *Apparition* does. Set within a frame narrative, the introduction of the story mentioned the aged narrator claiming he will describe an event 'd'une telle façon que depuis cette heure une sorte de terreur constante m'est restée dans l'âme' (Maupassant 780). *Apparition,* therefore, does not

seek to unexpectedly shock the reader with the ambiguously supernatural incident, but rather encourages them to predict the events of the story correctly and especially anticipate something striking to occur. Once the incident is then read in Segment 8, it is likely that the reader is less emotionally responsive in the segments to follow. It is also possible that the text manipulations in the control condition caused participants to be slightly confused by the narrator's behaviour in the text, which could have lowered their vividness of visualisation.

Participants reported finding the narrator's behaviour in *Apparition* as strange in both conditions. A participant in the experimental group reading the original text, for example, wrote the following.

> Je m'attendais dès avant la visite au château à ce que le narrateur serait confonté à "une apparition". Je n'ai donc pas été surpris, ni pris moi-même d'épouvante. D'autant moins que l'apparition n'a rien fait de menaçant. C'est au point que j'en considère presque que la réaction du narrateur est excessive. Pourquoi avoir gardé en son coeur autant d'effroi pendant 56 ans alors que l'expérience elle-même ne fut que "moyennement traumatisante", ai-je envie de dire.

Considering that the above participant was in the experimental group, it is possible that the narrator's behaviour came across as even more excessive in the control text, where the woman was described as mentally ill rather than deceased. A participant in the control group for example wrote the following comment.

> Il y a quelques instants moins compréhensible, des moments ou les réactions du personnage principal sont trop brusques, ou qui sortent de nulles part (voir le moment ou le protagoniste perd sa patience avec le jardinier) *ou bien encore des moments que le lecteur ne peut pas comprendre (-ses ressentis quand il se retourne et son intervention avec la femme mystérieuse)*.[33]

Another participant in the control condition similarly mentioned how they felt the events in the text 'n'étaient pas tout à fait logiquement connectés'. The two participants quoted above dropped in

[33] My Italics

vividness by 1 and 2 points respectively following the key segment. The comments suggest the likelihood that the manipulation of *Apparition* was perhaps not as successful as that of *Lui ?* in creating a text that is both void of the supernatural but also logical in its own right. The open responses in *Lui ?* suggested that participants in the control condition clearly recognised the ambiguously supernatural event took place in a dream (264). In *Apparition*, when the text might have been read as taking place entirely within the ordinary world, a few participants reported finding the narrator's behaviour to be incomprehensible. On the other hand, there were also links drawn between the *fantastique* even in the control condition of *Apparition*. One participant in the control group drew attention to how *Apparition* resembles a traditional ghost story but seemed to consider the control text as belonging to the *fantastique*, even recognising Guy de Maupassant's specific style:

> Cette nouvelle semble etre en ligne avec certaines nouvelles de Maupassant , tapant dans le Fantastique et l'irrationnel. La minutie des details, le style precis me rappelle "La Parurre", le cadre de la garison est typiquement 19ieme siecle et fais echo a Stendhal. Mais la datation de l'histoire racontee est 18ieme siecle, il me semble , a moins que je me trompe..Pour moi, l'image de la Dame Blanche , est une reference traditionnelle aux apparitions et histoires d'epouvante que l'on se transmet oralement entre generations.

It is possible that the control text of *Apparition* was therefore both less distinct from the ambiguously supernatural and less of a believable story in its own right for some participants. Their confusion with the plot in the case of the latter could perhaps contribute towards the notable drop at Point 9, when the narrator expresses his fear upon seeing the woman. It is interesting to note that my original hypothesis argued that a drop in vividness might occur when there is a lack of comprehension of the events in a fictional plot, such as the ambiguous supernatural intervention in the *fantastique*. Though unexpected in the control group, the comments combined with the significant drop at Point 9 encourages the idea that a lack of understanding of a character's behaviours or events in a text could contribute towards lowering vivid visualisation.

It is more difficult to explain the drop of 0.56 from Segment 1 to Segment 2 in the experimental group. There is not much difference between the two points in relation to perceptual strength. It is possible that, because of a possible relationship between emotional response, interest, and vividness of visualisation, participants in this group lose some interest in the story following the more intense introduction (as compared to the control group) in Segment 1 of the deceased wife.[34]

The spikes and drops in *Apparition* did not therefore behave as expected in the control group and were less extreme than expected for the experimental group, perhaps in part because of its predictable nature. A significant relationship was found, however, between the participants' ambiguity tolerance and their increases and decreases in vividness around the key incident in all four groups.

Ambiguity Tolerance

Chapter 4 stated that there was little to note of significance between the main text results and the other parts of the experiment (Genre questions, VVIQ, OSIVQ, ambiguity tolerance). With the exception of the weak positive correlation found between number of supernatural-related books read per year and vividness of visualisation and the spike at the ambiguously supernatural incident, no statistically significant results were found to support any of the hypotheses. However, Chapter 1 outlined some similarities in the open responses of participants with the highest ambiguity intolerance: they often mentioned 'curiosité', or a desire to know what happened 'next' in *Apparition*, which ends ambiguously with the sudden disappearance of the woman and the narrator's friend (89). Additionally, across all groups, a statistically significant ($p<0.05$) weak positive correlation (0.25) was found between ambiguity intolerance and the increase in vividness at the key segment. A statistically significant ($p<0.05$) weak negative correlation (-0.17) was found between ambiguity intolerance and the

[34] Tracked changes in *Apparition* can be found in the Appendix to Chapter 4.

drop after the key incident. Further key differences can be seen when the ambiguity tolerance is split by group. The following table contains a summary of the results.

	Average Ambiguity Intoler-ance (/7)	Spike Cor-relation	T-Test	Drop Correla-tion	T-Test
Lui ? Experi-mental	4.14	0.29	$p<0.05$	-0.43	$p<0.05$
Lui ? Control	3.75	0.21	$p<0.05$	-0.16	$p<0.05$
Apparition Experimental	4.40	0.45	$p<0.05$	-0.28	$p<0.05$
Apparition Control	3.99	0.24	$p<0.05$	0.41	$p<0.05$

Figure 5(n)

As illustrated above in Figure 5(n), weak to moderate statistically significant correlations were found between the spikes and drops and the ambiguity tolerance in these groups. Positive correlations were found between the change in vividness at the spike in all groups and ambiguity tolerance. In the ratings, the higher the rating is out of a possible 7, the higher the participant's ambiguity intolerance. This correlation therefore suggests that the higher one's intolerance to ambiguity, the more their vividness would increase at the key segment. There were slight differences in the average ambiguity tolerance per group, as seen in the second column of the graph; notably, the *Apparition* experimental group, who had the highest average ambiguity intolerance, also had the strongest positive correlation with the spike.

The results for the correlation between the drop and ambiguity tolerance are less straightforward. For both groups of *Lui ?* and the *Apparition* experimental group, there is a weak (*Lui ?* control

and *Apparition* experimental) and moderate (*Lui ?* experimental) negative correlation between the drop following the key segment and ambiguity tolerance. This therefore suggests that the higher one's ambiguity intolerance, the *less* the drop following the key segment. To clarify with an example, this would mean an individual who reports being highly intolerant of ambiguity reading one of the two original *contes fantastique* would be likely to have a notably increased vividness of visualisation at the key segment of *Lui ?* or *Apparition*, but the heightened vividness would drop by very little following the key segment. In contrast, the control group of *Apparition* showed a moderately positive correlation between the ambiguity tolerance ratings and the drop in vividness, suggesting that the higher this group's intolerance, the higher the value of the drop in vividness following the key segment.

The positive correlation between ambiguity intolerance and the spike of vividness at the key segment might be related to the emotional arousal from the unexpected nature of the key segment event. Questions in the ambiguity tolerance test included, for example, 'J'évite les situations que je ne peux pas comprendre facilement'. The ambiguously supernatural incident in the key segment could possibly be an example of such an incident. This idea is further encouraged by the slightly higher correlations found in the two experimental groups for ambiguity intolerance and the spike.

It is more difficult to justify why ambiguity tolerance should have a negative correlation with the drop in vividness in three of the four experiment groups. One possible explanation is that participants with lower ambiguity tolerance might come to a resolution regarding the ambiguously supernatural incident. In his attempt to define the *fantastique* using the reader's hesitation as a key concept, Todorov suggests that a reader eventually exits the hesitation by a decision between the *étrange* and the *merveilleux* (*Introduction à la Littérature Fantastique* 46). Though it is not definite that readers always hesitate when reading the *fantastique*, it is likely that the possible need to reach an explanation for the ambiguously supernatural incident suggested by Todorov is more valuable to a participant with lower ambiguity tolerance. Given the rapidity with which mental images are formed and dissolved (Mendelsund 2014), it is possible that a participant with high ambiguity intolerance reaches a

conclusion about the key incident more rapidly than those with less of a need to exit an ambiguous situation. This in turn then could reduce any drop in vividness caused by a lack of comprehension for readers who do not attempt to reach a resolution for the ambiguity as quickly. Similar to the spike, this idea is also encouraged by the higher negative correlations found in the two experimental groups with less explicable ambiguously supernatural incidents than the control group of *Lui ?*.

The hypothesised justification in the previous paragraph for the need to resolve the ambiguity and negative correlation with the drop following the key segment does not account for the moderate positive correlation found between the drop and ambiguity intolerance in the *Apparition* control group. It is possible that this difference was caused by the manipulation of *Apparition* making the text less clear for some readers. As mentioned earlier (267), some open responses in this group suggested participants found the narrator's behaviour in this text to be an overreaction in comparison to the banal incident of encountering a living (rather than deceased) woman inside a house. It is possible that for this control group, a high ambiguity intolerance led to vividness reducing following the key segment because there was no ambiguity in the key segment to begin with. This in turn possibly made the narrator's behaviour in Segment 9 more difficult to understand, which could have caused more of a drop for readers with more ambiguity intolerance. This chapter will conclude with a discussion of the range hypothesis (Hypothesis 1, Table 4(a), 228).

Range in the *fantastique*

The main hypothesis in this thesis was that the range of vividness should be higher for those in the experimental group than those in the control group. The reasoning behind the range hypothesis was based on the ambiguously supernatural incident in the *fantastique*. It was hypothesized that the reader would have a more vivid visualisation of the key moment in the experimental groups because of the unexpected intrusion of the ambiguously supernatural incident into the assumed ordinary storyworld. Additionally, it was also expected that their visualisation would drop more in the

experimental group than in the control group because of the increased cognitive effort required to explain the possibly supernatural incident compared to those in the control group. Perceptual strength, emotion-evoking writing (often relating to fear), kinaesthetic imagery, and decelerated kinaesthetic imagery, which often feature strongly in the ambiguously supernatural incident, were also considered to be important contributors to heightening vividness.There was less research on what might reduce vividness, but an absence of these four factors in addition to the increased cognitive effort mentioned here were both thought to be likely contributors.

This hypothesis was not supported; there was a minimal difference in range between the experimental and control groups of both texts, and in both cases, the control group had a slightly higher range. The main reason for this seems to be that, while both groups spiked at the key incident *and* dropped after the key incident, the drop was not as notable as expected. One possible reason for the vividness dropping less than expected might be the significant influence of baseline vivid visualisation ability on the visualising when reading fiction (Zeman 2020). The first chapter hypothesised that those with hyperphantasia or aphantasia are likely to consistently have high or low visualisation while those with an average visualisation ability are likely to have more range when they read fiction. However, the experiment results suggested that participants with average visualising abilities also have a limited range of visualisation. Those who scored around the average 3.5 on the VVIQ often went up to the maximum vividness rating of 5 in the main text, but rarely dropped their rating below 3. A little over a third of the participants (22 out of 64) had a range of either 0 or 1. The range hypothesis had been built in part on the basis that visual perceptual strength would be a dependable predictor of where vividness is likely to spike. However, the experiment results revealed that perceptual strength is rarely positively correlated to vividness.

While the visual modality for *Lui ?* and *Apparition* did not show much range, it was supposed that visual perceptual strength could be an important contributor to vividness. However, for three out of the four conditions, either no correlation or a weak positive correlation was found between the

visual modality of the Lancaster Norms and the experiment ratings. The significantly higher ratings of vividness as compared to perceptual strength has been discussed earlier in this chapter (307-308). It was also found that while correlations between the visual and other modalities and the participant ratings and other modalities were usually in the same direction, they varied in strength (5(h) 309, 5(m) 323). A key difference, for example, was the Lancaster Norms suggest a moderately strong negative correlation between the visual modality and the interoceptive modality in *Lui ?* and *Apparition* (-0.62 and -0.43 respectively). However, far weaker negative correlations were found between the experimental and control group ratings of both texts and the interoceptive modality (values can be found on Tables 5(h) and 5(m)). Additionally, in *Lui ?*, for example, a segment rated very highly on the interoceptive modality (Segment 10) was found to be one of the most highly-rated segments for vividness by the experimental group. This suggests that interoceptive words while lower in perceptual strength, are responded to differently when read in a sentence. It is possible that they contribute towards heightening a reader's vivid visualisation because they usually relate to bodily emotion-evoking writing (120). The results of the experiment thus indicate that it is more challenging to predict the vividness with which a text is read than expected in Chapter 2 based on perceptual strength alone.

For three of the four conditions in this experiment, the hypotheses regarding the spike at the key segment and the drop after was supported, even though the drop in particular tended to be less notable than expected. It is possible therefore that readers might respond to *fantastique* fiction as hypothesized to some extent: with a stronger emotional response at the intrusion of the ambiguously supernatural incident, and struggle to understand the events which occurred after the key segment: both the experimental groups of *Lui ?* and *Apparition* did report a spike in vivid visualisation and a drop after. However, the participants' range of vividness was not affected by their reading the *fantastique*. The main text results however do suggest other possible contributors to vividness which were not considered for this experiment and likely affected range; these will be discussed in the conclusion.

Conclusion

This chapter established some expectations of vivid visualisation in *Lui ?* and *Apparition* based on the Lancaster Norms and other contributors to vivid visualisation considered in Chapters 2 and 3, and then discussed how the findings from the experiment relate to these ideas. The purpose of this chapter was to illustrate what can be learnt from the experiment in relation to the more theory-based approach taken in Chapters 2 and 3.

While the primary hypothesis regarding a higher range of vivid visualisation in the experimental group as compared to the control group was not supported, the experiment results demonstrated some key findings. The first was that the perceptual strength of standalone words as suggested by the Lancaster Norms was barely reflective of how vividly a passage might be visualised by the reader. This was further reflected in the weak correlations observed between the Lancaster Norms visual modalities and the participants' vividness ratings: in three of the four groups, little to no correlation was found between the two. In all cases, the participant visualisation ratings across all groups were significantly higher than suggested by the visual modality.

As mentioned in the previous section (330), the hypothesized increased vividness in the key segment occurred in three of the four texts (all except the *Apparition* control) and the drop after the key segment occurred in all four texts. While there is very little research to date on why vividness of visualisation might drop, the drops found in the experiment results suggest firstly, that is it not very strongly related to low perceptual strength. Drops in vividness could relate, as mentioned in Chapter 2, to a drop in emotional arousal. Given the frequent drop of vividness following the key segment seen in the experiment results across groups, it is possible that drops in vividness when reading fiction relate to a reader's interest in the story and their anticipation while reading it. It is possible that reduced interest or anticipation after a certain point in the story is mirrored in the drop. In the case of the *fantastique*, as suggested by Graphs 4 and 8 and some of the open responses, a drop usually occurs after the peak of suspense have been reached with the intrusion of the ambiguously supernatural

incident. A similar argument was made for *Inès de Las Sierras* in Chapter 2(149). In relation to emotional response, the high vividness at an unexpected point in *Apparition* suggests that positive emotional response described in fiction can heighten vividness as much as more negative responses such as fear, in spite of the "shock" element which should make the latter more vivid.

While the principal hypotheses for this experiment were thus not entirely supported, the experiment using Maupassant's *Lui ?* and *Apparition* encouraged ideas about the extent to which the theoretical approach taken towards how the *fantastique* might be visualised was justified. It also offers many interesting avenues for further exploration of the *fantastique*, including the role played by non-visual modalities in contributing to vividness, the influence of anticipation and interest when reading in creating spikes and drops in vividness, and the relationship between ambiguity tolerance and visualising the key moment in the *fantastique*.

Chapter 5 Appendix

Lui ? Segment Descriptions

Segment Number	Description
1	Restless in room
2	Being outside
3	Returning home, (dream begins in control condition), seeing man
4	Reaches out to man, he disappears
5	Surprised, justifying hallucination
6	Getting ready for bed nervously
7	Reoccurence of the incident
8	Falling asleep, next day, walking home
9	Returning home, going in, worried
10	Being afraid ever since
11	Still worrying; seeing him everywhere

Apparition Segment Descriptions

Segment Number	Description
1	Meeting friend, hearing about dead (mentally ill in the control condition) wife
2	Friend's request
3	Breakfast, stressed friend
4	Narrator travels to house, happy
5	Arriving at the chateau, description of unkempt outdoors
6	Argument with gardener
7	Unkempt house description, sits down at desk
8	**Trying to find packages, the woman arrives**
9	The narrator's fear
10	Request to comb hair
11	Request to comb hair
12	Opens window, panics, runs away
13	Wondering, seeing hair on buttons, failure to re-unite with friends

Conclusion

This thesis set out to investigate how a reader's vividness of visualisation works when reading a *fantastique* work using a cognitive literary approach through theoretical analysis and an experiment. This was a valuable question as to date, the *fantastique* has not found a clear definition despite being frequently discussed as a genre (Castex 1962, Schneider 1964, Todorov 1970). The introduction argued that a useful method to distinguish the *fantastique* from neighbouring genres such as fantasy and horror was through the ambiguously supernatural incident; this was to say that only *fantastique* writing described an ambiguously supernatural incident in a way that made it difficult for the reader to determine whether it occurred, thus breaking the rules of the assumed to be ordinary storyworld, or whether there was a rational explanation for the event described. This aligned closely to Todorov's theory presented in *Introduction à la littérature fantastique* (1970). Todorov's theory identified the reader as key to the ambiguously supernatural incident by suggesting that the genre could be defined by their hesitation (Todorov 37). This thesis proposed the *fantastique*'s unique nature should be understood using the text content rather than the reader (34) but stated that Todorov's consideration of the reader's response to the *fantastique* was a valuable idea. Todorov chose not to delve further into the reader's mental processes, writing, 'Nous ne nous occuperons pas ici de la première function du fantastique : elle relève d'une psychologie de la lecture assez étrangère à l'analyse proprement littéraire que nous tentons' (*Introduction à la littérature fantastique* 98). However, I argued that the recent rise in cognitive literary theory could provide a valuable and refreshing lens to consider what makes the *fantastique* unique.

A hypothesis was eventually built around the visual imagery in a *fantastique* text: more specifically, it was thought that the ambiguously supernatural incident which features in nearly every

fantastique work could create greater inconsistencies in a reader's vividness of visualisation, leading to a larger range of vividness when reading the *fantastique* as compared to a non-*fantastique* text.

To investigate this hypothesis, the first chapter considered all the non-text contributors, or external factors, towards a reader's vividness of visualisation and established the extent to which they were likely to affect the reading of *contes fantastiques* in general, as well as the reading of participants in the experiment. A corpus of eight nineteenth-century *fantastique* texts was selected: Charles Nodier's *Une Heure ou la Vision* (1806) and *Inès de Las Sierras* (1837), Théophile Gautier's *La Cafetière* (1831) and *La Morte Amoureuse* (1836), Prosper Mérimée's *La Vision de Charles XI* (1829) and *La Vénus d'Ille* (1837), and Guy de Maupassant's *Lui ?* (1883) and *Apparition* (1883). The Maupassant texts were used to conduct the experiment, while the other texts were analysed through a cognitive literary framework across Chapters 2 and 3. Chapter 2 drew out four key components within the text likely to heighten vividness of visualisation—high use of words with perceptual strength, emotion-evoking writing, kinaesthetic imagery, and deceleration of an action—and analysed four of the six texts in the non-experiment corpus using the Lancaster Norms. In doing so, the chapter considered the role played by these factors during the ambiguously supernatural incident. Chapter 3 similarly considered the role played by auditory and haptic vividness in the *fantastique*, using the two remaining texts as well as others and arguing both types of nonvisual vividness to be contributors to heightening vividness of visualisation during the ambiguously supernatural incident.

The final two chapters then discussed the experiment. Chapter 4 unpacked the methodology, hypotheses, and results of the experiment. Finally, Chapter 5 synthesised some of the ideas presented in Chapters 2 and 3 with the experimental findings for *Lui ?* and *Apparition* (1883).

The main hypothesis regarding the larger range of vividness in the *fantastique* as opposed to the non-*fantastique* was not supported. The empirical results nonetheless offered some valuable insights. Firstly, as suggested in Chapters 2, 3, and 5, the Lancaster Norms are not largely reflective of both the extent of the vividness of visualisation participants have when reading, and their vividness

pattern. While the key segment was seen to contain a spike in perceptual strength for certain texts in Chapter 2 and 3 (e.g. *La Vision de Charles* and *Une Heure*), neither *Lui ?* nor *Apparition* contained a notable spike in the norms, but spikes were seen at the key segment containing the ambiguously supernatural incident in the vividness ratings of participants (Figure 4(l), 258, and 4(m), 259) which cannot be accounted for by the norms. This firstly encourages considering the role of descriptive emotion-evoking writing as key for vividness in the *fantastique*, particularly for the key segment. As discussed in Chapter 2, participants reported heightened vividness at the key segment containing the ambiguously supernatural incident containing the descriptive emotion-evoking writing even when they claimed to not have had an emotional response to the key segment (116)**.** Reading the words in a sentence as well as the emotion-evoking writing led to higher ratings for vividness than when the perceptual strength of all the words per segment was averaged. Though four factors were discussed in Chapter 2 as potential contributors to increasing vividness, emotion-evoking writing is likely to be the most valuable contributor. This is as two of the other three factors discussed (perceptual strength and kinaesthetic imagery) are found in other segments of the text besides the main segment where vividness was not particularly increased. However, segments with notable emotion-evoking writing usually showed an increase in the participants' vivid visualisation. In *Apparition*, for example, the participants' vividness spiked at two points in the text with emotion-evoking writing (Figure 4(m), 259). Deceleration of kinaesthetic imagery did not feature in either of the texts used in the experiment; it is thus more difficult to assess how it would have affected vividness of visualisation. However, its absence indicates that it did not contribute to the spike in the key segment.

The distinction between perceptual strength and the participants' ratings suggests a possible distinction between early and late nineteenth-century *contes fantastiques*. It was mentioned in Chapter 1 (19) that earlier texts tended to contain more visually perceptually strong words in the ambiguously supernatural incident than later texts. Perhaps, therefore, writers in the 1830s such as Nodier and Gautier relied on text imagery more heavily for the ambiguously supernatural intrusion than the later writers such as Maupassant. A replicated experiment with an early *conte fantastique* (e.g. *La*

Vision de Charles which spikes at the key segment in the norms) might therefore show a stronger positive correlation between the Lancaster Norms visual modality graph and participant ratings, compared to the lower correlations found in *Lui ?* (Figure 4(l), 258).

A key finding from the experiment results was the significantly positive correlation between participants with lower ambiguity tolerance and their heightened vividness when reading the key segment. The unique nature of this finding is further evident as there is no correlation between the ambiguity intolerance of participants and spikes in vividness at non- *fantastique* points (e.g. Point 4 in *Apparition*). This encourages the idea of a potential relationship between a reader's ambiguity tolerance and their vividness of visualisation of the key ambiguously supernatural intrusion. Further research potentially into ambiguity tolerance when reading adjacent genres discussed in the Introduction, e.g. horror, could further reveal how unique the relationship with ambiguity tolerance is to the *fantastique*.

Beyond ambiguity tolerance, the experiment results also encourage further research along a few other avenues. While it was necessary to choose short *contes fantastiques* to prevent a very lengthy experiment, *Lui ?* and *Apparition* had very few non-visual cues. *Apparition* does contain the hair-combing scene which rates highly on the haptic modality, but the haptic tends to be very positively correlated to the visual. It is an impossible task to entirely separate the influence of one modality on the others. However, it is very likely that these modalities contribute differently to vividness to some extent for a reader when engaging with fiction. Further research could reveal how modalities found to negatively correlate to the visual, such as the auditory, contribute to vivid mental imagery when reading. It may also be valuable to investigate the relationship between ambiguity tolerance and a *fantastique* work containing more than one ambiguously supernatural incident, e.g. *La Morte Amoureuse*: it is difficult to predict whether the reader's ambiguity intolerance and rise in vividness at every key segment would be positively correlated, or whether those with high ambiguity tolerance

would create an explanation for the possibly supernatural after the first ambiguously supernatural incident.

Emotional response, illustrated to be independent from perceptual strength in the experiment results could also be further unpacked. Participants in the experiment mentioned feeling a variety of positive and negative emotions raging from 'peur', 'suspense', 'choc' etc. It could be useful to replicate such an experiment asking participants to rate their fear, surprise, and other emotions on a scale as well as vividness to find any possible differences in how they relate to one another, and to emotion-evoking writing in the text. Chapter 5 also presented a hypothesis for the reader's interest in the narrative relating to their spikes and drops in vividness. To my knowledge, there is very limited research in this area. Sadoski (1988) investigated the correlation between a reader's rating of imagery, affect, and narrative importance and found a positive correlation of 0.65 for imagery and importance and 0.70 for emotion and importance (330).However, he defines 'importance' as 'Key occurrences critical to the story's plot, characterization' (325), while I am arguing for the reader's interest, which in the case of the *fantastique*, could relate more to anticipation or suspense rather than a 'key occurrence'. The relationship between vividness and interest could be investigated further in the future using a method similar to correlating emotional response and vividness of visualisation mentioned here.

It is worth revisiting Todorov's hypothesis here in relation to the experiment. Todorov's *Introduction à la littérature fantastique* (1970) argued that the *fantastique* can be defined by the reader's hesitation when reading a *fantastique* text. While this thesis argued that the *fantastique* was unique in its use of the ambiguously supernatural incident and focused on a reader's response to the genre, similar to Todorov, there are notable differences between the two approaches. As established in the introduction (35), the thesis focuses on categorising the ambiguously supernatural incident entirely using the text content rather than the reader's response to it. The experiment carried out did not investigate the reader's hesitation. It is thus difficult to say whether the unsupported hypothesis for range of vividness supports or contradicts Todorov's idea of hesitation. On the other hand, it could be

suggested that the findings in relation to low ambiguity tolerance link to part of Todorov's hypothesis regarding how the hesitation is resolved.

Todorov argued that the reader eventually categorises the hesitation as either the étrange or the merveilleux. As discussed in Chapter 5, it was found that participants with low ambiguity tolerance tended to show less of a drop in vivid visualisation after the key segment despite showing a higher spike during the segment (330). I argued that this could be caused by a rush to discard the ambiguity and categorise the ambiguous supernatural incident with an explanation, thereby avoiding the reader's struggle to understand the incident that I suggested might generally cause the drop (38). It could thus perhaps be argued that, if Todorov's hesitation hypothesis is valid, it relates to the participant's ambiguity tolerance; even if all readers did hesitate (which in itself is unlikely given the number of individual differences between readers), those with lower ambiguity tolerance might do so for less time when reading as compared to those with higher ambiguity tolerance who may enjoy hesitating between different explanations for the ambiguously supernatural incident.

Using both a theoretical and empirical approach, this thesis has investigated a reader's vividness of visualisation when reading a *fantastique* work and found a contributor external to text content (ambiguity tolerance) and some factors argued to contribute to vivid visualisation in existing research (e.g. emotion-evoking writing) to be valuable to how vividly the ambiguously supernatural intrusion present exclusively in the *fantastique* is visualised by the reader. Future research through a cognitive literary framework using different types of *fantastique* texts, neighbouring genres, e.g. *merveilleux*, fantasy, and horror texts, or investigations into other individual personality traits, can further contribute towards exploring the unique nature of the *fantastique*.

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