THE RELATIONSHIP BETWEEN THE ARISTOTELIAN, NEWTONIAN AND HOLISTIC SCIENTIFIC PARADIGMS AND SELECTED BRITISH DETECTIVE FICTION 1980 - 2010

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ABSTRACT

This thesis examines the changing relationship between key elements of the Aristotelian, Newtonian and holistic scientific paradigms and contemporary detective fiction. The work of scholars including N. Katherine Hayles, Martha A. Turner has applied Thomas S. Kuhn's notion of scientific paradigms to literary works, especially those of the Victorian period. There seemed to be an absence, however, of research of a similar academic standard exploring the relationship between scientific worldviews and detective fiction. Extending their scholarship, this thesis seeks to open up debate in what was perceived to be an under-represented area of literary study.

The thesis begins by identifying the main precepts of the three paradigms. It then offers a chronological overview of the developing relationship between these precepts and detective fiction from Sir Arthur Conan Doyle's *The Sign of Four* (1890) to P.D.James's *The Black Tower* (1975). The present state of this interaction is assessed through a detailed analysis of representative examples of the detective fiction of Reginald Hill, Barbara Nadel, and Quintin Jardine written between 1980 and 2010.

The thesis concludes that by presenting the interrelatedness characteristic of the holistic paradigm in a positive light, the work of Hill, Nadel and Jardine may facilitate a paradigm shift away from the dominant Newtonian paradigm towards a more holistic worldview. Further, contemporary detective fiction may have an important role to play in acclimatising its readership to a more inclusive worldview.

This research identifies several areas for future study. It would be interesting to extend this work to take account of detective fiction from other cultures. It would also be fascinating to investigate the relationship between structure (of both the narrative and the plot) and scientific pattern in order to assess just how far scientific concepts and detective fiction are interconnected.

CONTENTS

Introduction

> [T]he chemical laboratory [...] was a loft chamber, lined and littered with countless bottles. Broad, low tables were scattered about, which bristled with retorts, test-tubes, and little Bunsen lamps, with their blue flickering flames. There was only one student in the room, who was bending over a distant table absorbed in his work. (Doyle 17)

It would be safe to assume from the above quotation that the student is engaged in some form of scientific observation or experimentation. This is indeed the case. The student is about to discover a chemical test for the presence of blood. The student is perhaps better known as the 'apotheosis' (Knight 55) of the fictional detective, 'the greatest of Great Detectives' (Symonds 66) Mr Sherlock Holmes. Detective fiction and science both seek knowledge. They are both experiments in that their outcome is uncertain.

The relationship between science and the fictional detective has been noted and discussed by literary scholars from Dorothy L Sayers, in the Introduction to *The Omnibus of Crime* (1929) up to the present day. Recent decades have witnessed an increase in the amount of critical work in the field of the relationship between literature and science, especially in the nineteenth century novel. Studies such as Gillian Beer's 1983 publication *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth Century Fiction;* Tess Cossett's Science *and Religion in the Nineteenth Century* (1984) and George Levine's Darwin *and the Novelists: Patterns of Science in Victorian Fiction* (1988), discuss the relationship between science and literature in the Victorian era.

However, with the exception of Gill Plain's *Twentieth Century Crime Fiction* (2001) discussed in more detail below, there seems little published of a similar scholarly standard which relates to the most recent literature and virtually none at all that investigates the relationship between science and contemporary detective fiction. This omission is surprising as preliminary studies suggest this to be an area which would repay study bearing in mind the rapid growth of science and technology in the present era and the undiminished interest in detective fiction. This study aims in some part to address the lack of critical work in this area. Moreover it seeks to stimulate academic discussion by presenting the case for further research.

Whilst confining this investigation to encompass the work of British authors alone this study wishes to acknowledge the debt the development of the genre owes to examples from other cultures, such as the Swedish Inspector Kurt Wallender series of Henning Mankell (b.1948) and the novels of Patricia Highsmith (1921-1995) in America. Also highly influential, but again lying outside the scope of this thesis is the rise in importance and popularity of the television detective, especially investigators whose role as a detective is secondary to their career. Examples of this include such British television series as BBC Television's *Silent Witness* and the *CSI* series in America.

A definition of the terms 'science' and 'detective fiction' as they would be understood within the context of this research was considered an essential prerequisite. The nature of science, and its interaction with detective fiction, has altered considerably since the Sherlock Holmes era. This is partly because the high degree of specialization reached within the discipline of forensic science places it outside the expertise of the fictional detective. Today, it is carried out in state of the art laboratories using high-specification equipment by teams of experts. There is therefore little overt scientific practice apparent within the British detective fiction novel of today. This study will demonstrate, however, that a wealth of science functions within detective fiction at a far deeper level. It informs the worldview or paradigm within and against which the plot is played out.

In 1967 Thomas S. Kuhn introduced, in his seminal work *The Structure of Scientific Revolutions,* the notion of scientific paradigms. For Kuhn, a paradigm is a set of fundamental beliefs and practices, knowledge and acceptance of which guides current scientific activity. Science progresses not by accumulating ever more facts, but by the gradual 'shifts in vision' between one paradigm and that proceeding it (116). The new paradigm must be able to answer more questions satisfactorily than the previous one. By doing so it implies 'a new and more rigid definition of the field' (17).

Kuhn also discusses 'normal science', that is, scientific research and practices operating within the confines of the prevailing paradigm which serve to both articulate and reinforce the dominant paradigm. Such practices include the practice of forensic science both in the real world and in the world of the detective fiction novel. The first thesis chapter identifies the main salient features of the Aristotelian, Newtonian and holistic

scientific paradigms showing how these features relate to specific examples from detective fiction.

In *Twentieth Century Crime Fiction,* Plain offers a critique of Kuhn's *The Structure of Scientific Revolutions* defining ways in which Kuhn's theory of paradigms is equally applicable to crime fiction. Kuhn argues that new scientific ideas do not supersede old ones. The development of science is not a cumulative one. The same can be argued for the history of detective fiction.

In Part II of her book, 'The Normal Science of Detection,' Plain draws parallels between the writers of detective fiction and Kuhn's 'normal science'. For Plain, the writers 'experiment, they explore, they develop and hypothesise' within the paradigm of detective fiction (87). Again the parallels Plain draws between detective fiction and science are closely related to this research. This is because, through tracing these parallels it is possible to link the development of the detective fiction genre with the development of our attitudes to science which shape our view of the contemporary world. As science tests the bounds of the possible and the knowable, detective fiction can push back the boundaries of narrative convention but ultimately does not exceed them.

The aim of the second chapter of this thesis was two-fold. Its first aim was to arrive a suitable definition of detective fiction: its second to trace the chronological development of the genre in relation to the Aristotelian, Newtonian and holistic scientific paradigms. Further, it traces the influence and interaction of the form's literary heritage with the historical, social and political context within which it is written.

The following three chapters deal with the relationship between the three paradigms identified in Chapter 2 and the work of Reginald Hill, Quintin Jardine and Barbara Nadel written between 1980-2010. These three authors were chosen because extensive reading showed their attitudes to the three worldviews to be typical of contemporary detective fiction in general. Further, as there is little published critical work on Reginald Hill and virtually none on either Nadel or Jardine, it was hoped both to open critical assessment of their work and assist in the recognition of its literary value. Moreover, the

influence of the three scientific paradigms on the work of these three authors was clearly recognizable and could be convincingly demonstrated.

This thesis received its initial impetus from the scholarship of N. Katherine Hayles, Martha A.Turner and Wendy Wheeler. Hayles, Turner and Wheeler all cite the work of Kuhn, demonstrating the relevance of his work to their own research. In 1984, Hayles wrote *The Cosmic Web: Scientific Field Models and Literary Strategies in the 20th Century*. Her Preface opens with the observation that: '[w]e are living amid the most important conceptual revolution since Copernicus argued that the earth was not the center of the universe' (9). This conceptual revolution is essentially synonymous with Kuhn's idea of paradigm shift. Hayles initially calls the hypothesis at the centre of this revolution the 'field concept', later employing the term 'cosmic web' as its characteristic metaphor (15). The aim of her book is to 'examine and compare a wide range of phenomena that embody it [the 'field concept']' (9). This thesis extends and develops Hayles's scholarship on the work of Robert M. Pirsig, D.H.Lawrence, Vladimir Nabokov, Jorge Luis Borges and Thomas Pynchon into the realm of recent detective fiction.

Hayles's 'field concept' parallels the holistic paradigm, especially in its emphasis on how everything is 'interconnected' (9). She identifies newly emergent theories in modern physics as being at the heart of this 'field concept'. Her 'field concept' also mirrors the holistic paradigm in its revision of the Newtonian concept of a one-way chain of events from cause to effect and the separation of subject from object; the duration of objects through time; the uniform unidirectional flow of time and the metaphor of the world as a clock (16). In her Introduction she identifies other similarities such as 'its fluid dynamic nature; the inclusion of the observer; the absence of detachable parts and the mutuality of component interactions' (15). Hayles's application of the concept of subject /object separation to literature became particularly interesting when applied to detective fiction, especially when considering the detective who was both part of the case and the investigating officer, for example, as Andy Dalziel found himself in *Bones and Silence* (1990).

Hayles contends that the degree to which authors accept or acknowledge the role of science in their work is immaterial to the outcome. She says of her five authors that they

‘are reacting not to science as such, but to a more general set of ideas pervasive in the culture’ (25). This relates to the parallels Plain draws between detective fiction and science discussed earlier. This thesis similarly shows how the novels of Hill, Jardine and Nadel react not to the science but to the ‘ideas pervasive in the culture.

Martha A. Turner’s 1993 publication, *Mechanism and the Novel: Science in the Narrative Process,* considers the relationship between mechanism, a defining characteristic of the Newtonian paradigm, and literature. Turner traces the development of the concept of mechanism from Jane Austen in *Pride and Prejudice* (1796), through to Doris Lessing’s *Canopus* series. Turner’s aim is show how Newtonian-inspired mechanistic concerns are so deeply rooted in nineteenth century culture, as indeed they are still today. Turner contends that the worldview they inspire underpins works of fiction irrespective of whether authors acknowledge their influence or not (6). Turner thus reflects Hayles’s point regarding the insidious power of science.

Similarly, because as Turner points out ‘literature and science converge through a common cultural ground’ (5) and because science is so embedded within culture, it is immaterial whether authors such as Hill, Nadel and Jardine engage with science directly in their writing or not, its influence will still be present. Although Nadel’s engagement with science in her fiction is more overt than in the work of Hill or Jardine, there is no evidence that any of the three are aware of the influence of the Aristotelian, Newtonian and holistic paradigms within their work. References to these three paradigms within this thesis reflect an external analysis, although this analysis does at times coincide with what appears to be the authors’ instinctive and sometimes, in the case of Nadel in particular, conscious awareness of the role of science within culture.

I found it possible to extend many of Turner’s ideas to include recent works of detective fiction. For example, discussing the novels of Sir Walter Scott, Turner notes the influence of the Newtonian paradigm in the way that it ‘suggests that Scott, like scientists of his day, believed that the empirical observation and rational inference of underlying laws were the only ways to gain definitive knowledge of the world’ (70). However, Turner points out that ‘other forms of knowing’ such as intuition, fantasy and creative imagination also play their part (78). All the three series detectives considered in this study, but especially Nadel’s Inspector Çetin İkmen, demonstrate how forms of

knowing other than those derived from Newtonian science are of great importance to their crime-solving abilities.

Charles Dickens's *Bleak House* (1852-53) marks for Turner 'the transition from a culture for which nature, God and man- and hence science, religion and art – were at least theoretically harmonious with one another, to a culture profoundly at odds with itself' (98). This was also found to be relevant to detective fiction of today. For example, the concept of a culture profoundly at odds with itself might be a description of Barbara Nadel's Turkey; 'a city out of balance, [with] people doing stupid out of character things' (Nadel, personal email, 16/01/07).

Turner discusses how Joseph Conrad's *The Secret Agent* (1907) acknowledges the mechanistic legacy but shows this as intertwined with other non-mechanistic models. For Turner, 'Conrad seemed less anxious than the earlier novelists to anchor the mysteries of phenomenal experience to a single explanatory framework' (125). This might equally well refer to Nadel's work, especially in the character of Max in *Deadly Web* (2005).

Turner concludes that apart from *Pride and Prejudice*, 'the novels I have examined are fully implicated in this process [the mechanistic/anti- mechanistic feedback loop]' (170). For Turner, Newtonian mechanistic assumptions about the world might be questioned, but where alternatives are suggested, their worth is still measured against the scientific models and standards inherent within the Newtonian paradigm, thus perpetuating it. This thesis was able to demonstrate indications, in Hill's *A Killing Kindness* (1980), and Quintin Jardine's *Autographs in the Rain* (2001) for example, that more recent detective fiction shows a weakening of the supremacy of the Newtonian paradigm by questioning the adequacy of Newtonian-inspired technology and forensic science alone to satisfactorily address the needs of the twenty-first century world.

Like the work of Turner and Hayles, Wendy Wheeler's 2006 publication *The Whole Creature: Complexity, Biosemiotics and the Evolution of Culture* recognizes that a basic change is underway in our perception of the world, calling it 'the long revolution in human thought and scientific understanding' (12).

Wheeler further defines her aim: 'this book, then, is a sketch by way of exemplary instances of the history of the paradigm shift which has been taking place in the sciences for the past sixty or seventy years' (20). It is for these reasons that I considered her work of importance to this study, although rather than offering evidence of this shift by reference to specific literary works as Hayles and Turner do, Wheeler relates it to the human condition.

Wheeler does not aim to 'do away with the methodological power of reductionism in science' but rather to 'set it within a larger framework of understanding' (21). Newtonian-inspired science still has its role to play for Wheeler, but within the new holistic paradigm which accepts other knowledge systems as well. This reflects the attitude to the Newtonian worldview presented within the detective fiction of Hill, Jardine and Nadel, if to varying degrees.

Wheeler opens her book with an outline of the background of complexity science. Citing Norbert Elias's *The Civilizing Process* (1939) and more especially Raymond Williams's *The Long Revolution* (1961), Wheeler traces the growing recognition of complexity science as a corrective to the objective science of the past and goes on to demonstrate how complexity science both aids an understanding of human society and culture and is itself a product of developments within it. Human society can no longer be considered as an aggregate of separate individuals. Rather, society is a product of the individual as the individual is a product of society, a view increasingly echoed in recent detective fiction. This reciprocity and interconnectedness of complexity science is a feature of the holistic paradigm.

Wheeler recognizes 'a new kind of science' which 'is a profound shift of focus […] from the particular [of Newtonian science] to the skillful attention to the whole [as manifest in the holistic paradigm]' (70). Wheeler (along with Turner and Hayles) recognizes that within this new kind of science all phenomena are 'deeply interconnected and dynamic (72). Wheeler emphasizes that up until now scientists have been mainly interested in data, failing to recognize the gap that exists between data and the world as it functions as a whole. Detective fiction invites this kind of study because it is a form dedicated to examining how we construe knowledge. This thesis is able to demonstrate how reaching the correct conclusion is dependent on interpreting the

Newtonian –inspired forensic evidence in the correct manner. This is a particular concern to Jardine's detective Skinner, whose wife only escapes prosecution for murder when Skinner is able to prove that the forensic evidence has been misinterpreted (*Fallen Gods,* 2003: 228).

Wheeler's further aim is to 'explore the relationships between […] different ways of knowing in order, hopefully, to better understand them' (80). She feels that 'religion art and science are not fundamentally different sorts of human endeavour, but must be understood as related activities' (106). Wheeler is suggesting here that 'all forms of human knowing […] are forms of 'world modelling', which imply conceptual framing.' Wheeler's 'framing' is similar to the Newtonian paradigm's practice of enclosing different types of knowledge within secure boundaries. She further points out that science is contiguous with other forms of knowledge. This is similar to Nadel's view that science does not just supersede magic, rather the two knowledge systems work alongside one another (personal e mail), a view clearly demonstrated in Nadel's work. For Wheeler, older forms of knowledge should not be disregarded as they form the 'supporting storeys' on which today's knowledge is built (81), a view also echoed within Nadel's fiction.

Wheeler recognizes instincts and hunches as rational, forming an important part of what we need to succeed in the world, a view this study will show demonstrated by the works of Hill, Jardine and Nadel. Wheeler feels that within the all-inclusive (holistic) worldview, science is returning to some extent to the position where non-empirical forms of knowledge are becoming acceptable within it. This study has been able to demonstrate an increasing acceptance of this point of view in the work of these three authors.

Wheeler sees the individual, not as a discrete entity but as a product of their environment, which they, in turn, help to create. This state involves constant feedback (a feature of the holistic paradigm) between the individual and his environment. This thesis has been able to identify the importance of feedback in contemporary detective fiction. For example, the feedback between Dalziel and Pascoe in *Bones and Silence* is of paramount importance in solving the case. Wheeler shows how, because of this interdependence of the individual and the world at large, neither absolute objectivity,

nor absolute subjectivity is possible, a state also recognized by the holistic paradigm and apparent within contemporary detective fiction. Of primary importance to the well-being of the individual is the amount of control they feel that they have over their circumstances. Nadel's work, as previously mentioned, is set against the backdrop of a world out of control.

Plain is not optimistic about the future of crime fiction. Feeling that it has 'reached an impasse' she feels that 'it has so far departed from its original paradigms that it hardly knows itself' to the state where she wonders 'whether 'crime fiction' can continue to exist as a viable critical and cultural category' (196). Its survival 'will ultimately depend upon the genre's capacity to regenerate and reposition the essential body of the other' (248). This thesis concludes that detective fiction is achieving just such a regeneration and repositioning. Contemporary detective fiction is not just surviving but is thriving through a strengthening of its interaction with current-day issues. Moreover, this research identifies how detective fiction frequently leads the way forward towards a more holistic worldview. By demonstrating the beneficial effects of concepts related to the holistic paradigm, the detective fiction genre champions the inclusivity of the new worldview. In challenging and questioning the main precepts of the dominant Newtonian paradigm it paves the way for a worldview more appropriate to the dawning of a new age.

Chapter 1

The Notion of Scientific Paradigms

Changes in Worldview from Aristotle to Hawking

The aim of this chapter is to expound the defining features of the Aristotelian, Newtonian and holistic scientific paradigms. The chapter also discusses the relevance of these paradigms and paradigm shift to literature, and to the detective fiction genre in particular. The history of science is virtually a discipline in its own right. Therefore, for the sake of brevity, only the elements of each paradigm considered most relevant to the development of detective fiction have been included in this study.

The Notion of Scientific Paradigms

Following the work of Thomas S. Kuhn mentioned in the Introduction, a paradigm is a model of how the world is perceived at any given time. A scientific paradigm will embrace a large portion of the prevailing scientific knowledge, practice, standards and theories, all of which will be based on the acceptance of a very small number of all-supporting truths. These truths are usually contained within the published work of one particular scientist. Although not responsible for formulating the whole of the worldview described within it, this scientist is often the first to bring together other scientists' work, which combined with his own, presents the new worldview as a complete, coherent theory. Such scientists include Aristotle (384 – 322 BC), Nicolaus Copernicus (1473-1543), Isaac Newton (1642-1727), Charles Darwin (1809 – 82) and Albert Einstein (1879 – 1955).

Any one paradigm will exist for as long as the results of scientific enquiry within it broadly support and uphold the fundamental truths on which it is based. When the results of scientific enquiry stretch the boundaries of the current paradigm to the extent that it becomes untenable, or when its fundamental truths are disproved, a shift is said to have occurred towards a new paradigm which may accept different fundamental truths as its base. A paradigm is neither true nor false: rather it reflects the perspective of the time. As one paradigm replaces another it facilitates a greater understanding of the world and how it functions. No one paradigm is likely ever to provide a complete,

totally accurate worldview. The openness of a paradigm defies any definition of the transition-point between one paradigm and the next. However, it is possible to recognize some scientific discoveries as heralding different ways of perceiving the world.

New paradigms gain acceptance slowly. This is partly because the new truths on which the emerging paradigm is based should characteristically lie outside the frame of reference of the current paradigm. These new truths might at first be seen as anomalies within the prevailing paradigm. It is only when a significant body of evidence has been amassed which supports the veracity of the new truths that the old ones might start to be questioned. It is also probable that certain aspects of a given paradigm might never be completely outmoded.

The Aristotelian Paradigm : Logic, Deductive Reasoning and the Detective

The oldest paradigm of interest to this study is the Aristotelian paradigm. Although known primarily today as a philosopher, Aristotle wrote numerous volumes on a variety of subjects including history, the sciences, cosmology, politics, and ethics as well as philosophy, only a fifth of which survive today. The breadth of Aristotle's contribution to knowledge makes it difficult to isolate any one of his theories as providing the foundation for the Aristotelian paradigm. Many Aristotelian concepts, such as the relationship between observation and theory in scientific method, have remained embedded in Western thinking to this day (Encyclopaedia Britannica online).

Several problems confront scholars of the writings of Aristotle today. There are obvious difficulties of both translation and transliteration. Firstly, there may not be any direct translation in English for a given word or phrase. Secondly, there is the problem of semantics: even where a word can be accurately translated, its meaning may have changed. For example, the original ancient Greek title of Aristotle's *Physics*, τὰ φυσικά, translates as 'nature.' It encompasses what might today be considered as natural philosophy or the study of the natural world rather than that branch of science which is now known as 'physics'.

Similarly, Aristotle's use of the word 'science' is somewhat confusing and difficult to equate with modern-day usage. The word 'επισήμη' in the original Greek of *Posterior*

Analytics translates as 'science' (Hionedes 256) but the word 'science' was only used for the first time by William Whewell as late as 1833. Therefore, as John Henry points out in his comprehensive and insightful *The Scientific Revolution and the Origins of Modern Science* (1997), 'strictly speaking, there was no such thing as 'science' before that date' (Henry 4). Henry equates Aristotle's 'science' with that which is usually referred to today as 'natural philosophy' whose aim was to 'describe and explain the entire system of the world' (Henry 4). It would therefore be synonymous with the Aristotelian word 'physics'. In *Nicomachean Ethics* (c. 350 BC), however, Aristotle defines science as being both 'the most accurate of all knowledge' and 'the union of Knowledge and Intuition' (104). In Part 4 of *Posterior Analytics* (c. 350 BC), Aristotle seems to imply the scientific knowledge of a thing requires knowledge of its essential nature, and 'cannot be other than it is' (*Posterior Analytics* 1.6 (Bk1 Part6)).

The Nature and Development of Aristotelian Knowledge

Aristotle believed that knowledge grew slowly, In *Nicomachean Ethics*, he states the importance of building knowledge on the opinions of his predecessors (132). References to the work of Aristotle's predecessors, for example Thales (ca 624BC – 546BC), Pythagoras (ca 570BC – 495BC) and Anaxagoras (ca 500BC – 428BC), permeate his writings. Similarly, tradition was also of great importance to Aristotle. The first chapter of his *De Anima* is thus dedicated to an exposition of 'The Traditional Background' and details the work of past philosophers (125). In the Introductory Notes to Chapter One of *De Anima*, Hugh Lawson-Tancred states that 'Aristotle opens the work by setting the study of the soul in its scientific context' (125).

Similarly, Doyle's Sherlock Holmes stories frequently refer to his literary predecessors, thus setting them within their literary context. A good example of this is Holmes's reference to the work of Edgar Allan Poe (1809 – 1894) in *A Study in Scarlet* (1887). Likewise, the detective fiction of Reginald Hill is often underpinned with references to past literary works. The eight parts of Hill's *Bones and Silence* (1990), for example, are prefaced by quotations from *The York Cycle of Mystery Plays* which both provide the setting for and inform the story line of the novel. Hill's *Death's Jest-Book* (2002) takes its title from a work by the poet Thomas Lovell Beddoes (1803 – 1849) published posthumously in 1850. The work influences Hill's novel on a variety of levels. For

example, it is being studied by Franny Roote, one of the main characters; it provides the background against which the novel is set and informs its romanticized Gothic tone.

Aristotle was an empiricist believing that all knowledge emanated from experience. According to Aristotle, 'from memory, experience is produced in men; for several memories of the same thing produce finally the capacity for a single experience' (*Metaphysics* 1.11). In practical terms, this closely resembles Holmes's assertion in *A Study in Scarlet* that '"if you have all the details of a thousand at your finger ends, it is odd if you can't unravel the thousand and first"' (Doyle 24). Both Holmes's personal experience and his knowledge of the history of crime, form important elements within his method of detection. Similarly, Aristotle's assertion that 'men of experience succeed even better than those who have theory without experience' (*Metaphysics* 1.1) is echoed by the policeman Jones, when in *The Sign of Four* (1890) he berates Holmes for being solely a theorist (Doyle 113). This is discussed in more depth in Chapter 2.

Aristotle's assertion that 'by a knowledge of the universal then we see the particulars' demonstrates his interest in the role played by the individual within the universal (*Prior Analytics* (c. 350 BC) 2.21). Further, 'experience is knowledge of individuals, art of universals' (*Metaphysics* 1.1). Knowledge of the individual can be obtained through the senses and through close observation, but an understanding of the universal cannot be obtained in this way: it is the province of art (*Metaphysics* 1.1). Aristotle values knowledge of the whole above knowledge of the individual, because knowledge of the individual is but one part of knowledge of the whole. Wisdom is knowledge of the whole (*Metaphysics* 1.1). This recognition of the importance of the whole allies Aristotelian thought to the precepts of the holistic paradigm, which similarly acknowledges the importance of the individual within the whole. Knowledge of 'what' is knowledge of the particulars which became so important within the Newtonian paradigm, but of greater importance than this for Aristotle, is knowledge of the 'why?', that is, of the principal cause (*Metaphysics* 1.1). As discussed at greater depth in Chapter 2, this is exemplified in John Creasey's *Inspector West Alone* (1950). It is this question of 'Why?' which haunts Inspector West with regard to his fate.

Aristotle's All-Inclusive Philosophy of Knowledge

Comparing the writings of Aristotle with, say, Albert Einstein's *The Special and General Theory of Relativity* (1920) one is aware of a fundamental difference in what constitutes knowledge for the writers and what is acceptable as proof of that knowledge. The writings of Aristotle are, arguably, philosophical works where theories, hypotheses and their proofs are arrived at through the employment of the powers of the mind: of reason and of logic. When Aristotle refers to 'demonstrable science', for instance in the quotation below, he means demonstrable through argument, not through practical demonstration. What constitutes proof for Einstein, on the other hand, is mathematical formulae. The need for practical rather than mental demonstration is frequently a stumbling block for Hill's Detective Superintendent Andy Dalziel. In *Bones and Silence* (375) for example, Dalziel may be able to demonstrate Swain's guilt to Dan Trimble through Aristotelian argument and reason, but he has to concede that reason alone will not be accepted as evidence in a court of law where Newtonian hard scientific facts are required (See Chapter 3).

In *Prior Analytics*, Aristotle developed at length his theory of deductive reasoning, which involved the forming of a conclusion from two premises known as a syllogism (*Prior Analytics* 1.1). Building on this work, *Posterior Analytics* deals with the nature of the scientific axiom which is 'an immediate basic truth [...] which the pupil must know if he is to learn anything whatever' (*Posterior Analytics* 1.2). Aristotle lays down two sets of conditions on which true knowledge is dependent. Firstly, 'we suppose ourselves to possess unqualified scientific knowledge of a thing [...] when we think that we know the cause on which the fact depends, as the cause of that fact and of no other'. Secondly, 'the proper object of unqualified scientific knowledge is something which cannot be other than it is' (*Posterior Analytics* 1.2). For Aristotle, '[s]cientific knowledge is not possible through the act of perception', because scientific knowledge is of the universal, not of the particular and cannot therefore be perceived through the human senses (*Posterior Analytics* 1.31). This is one fundamental difference between Aristotelian philosophy and that of Newton, for whom science was primarily involved with the study of the particular.

Posterior Analytics demonstrates clearly the difficulty of arriving at an exact science without the aid of concrete Newtonian physically demonstrable facts. Aristotle's

method of demonstration was by reasoned argument. The dénouement of an Agatha Christie mystery provides a fitting illustration of this, for example, Poirot's 'explanation' at the conclusion on *Mrs McGinty's Dead* (1951) (Christie,1951: 181). Thus, *Posterior Analytics* is an attempt to define terms and conditions within which truth can be proved by argument alone. This produced several conundrums. For example, scientific knowledge must be based on premises which are know to be true, but how can this be known except by argument? Because of this, Aristotle states: 'Some hold that, owing to the necessity of knowing the primary premisses [sic], there is no scientific knowledge. Others think there is, but that all truths are demonstrable' (*Posterior Analytics* 1.3).

Posterior Analytics opens by stating that '[a]ll instruction given or received by way of argument proceeds from pre-existent knowledge' (*Posterior Analytics* 1.1). For detective fiction, as discussed in Chapter 2, Sherlock Holmes considered knowledge to be one of the three qualities essential in the detective. While studying the works of his ancestors was possible for Aristotle in the field of, say, logic, previous work in the field of biology was scant. Aristotle's studies in this field, therefore, had to start from his own observations of animals' behaviour and through carrying out dissections.

Aristotle's thought was greatly influenced by Plato, although he did not necessarily agree with the details of his philosophy. For example, while Plato believed that all knowledge could be founded on a single set of axioms (the fore-runner, perhaps, of Stephen Hawking's 'Theory of Everything'?), Aristotle did not agree, favouring the independence of individual scientific disciplines.

Thus, at the opening of Part 7 of *Posterior Analytics*, Aristotle states that:

> [W]e cannot in demonstrating pass from one genus to another. We cannot, for instance, prove geometrical truths by arithmetic [...] Arithmetical demonstration and the other sciences likewise possess, each of them, their own genera; so that if the demonstration is to pass from one sphere to another, the genus must be either absolutely or to some extent the same.

Moreover, '[t]here is a limit, then, to the questions which we may put to each man of science; nor is each man of science bound to answer all inquiries on each several subject but only such as fall within the defined field of his own science' (*Posterior Analytics* 1.12). For Aristotle, knowledge is bounded by the discipline within which it is

operating. He gives the example that ‘it is the physician's business to know that circular wounds heal more slowly, the geometer's to know the reason why’ (*Posterior Analytics* 1.13). Similarly, Aristotle points out how a fact and the reasoned fact may belong to different sciences. For example, the observation of a ray of light may belong to the science of optics while the reason for the appearance of that ray of light may lie within the province of mathematics (*Posterior Analytics* 1.13). The separation of the fact from its reason is a frequent dilemma in detective fiction where the forensic scientist is asked by the detective to give an explanation for his findings. For example, Dr Gentry, the Head of the Forensic Laboratories in Hill’s *The Wood Beyond* (1996) ‘saw his job as making discoveries. The use they were put to was in the purview of coarser life forms, like detective superintendents’ (184).

Aristotle differentiates between knowledge and opinion thus:

> The truth perhaps is that if a man grasps truths that cannot be other than they are, in the way in which he grasps the definitions through which demonstrations take place, he will have not opinion but knowledge: if on the other hand he apprehends these attributes as inhering in their subjects, but not in virtue of the subjects' substance and essential nature possesses opinion and not genuine knowledge. (*Posterior Analytics* 1.33)

Andy Dalziel frequently demonstrates the confusion which can arise between knowledge and opinion. Often Dalziel regards as knowledge, that is, fact, that which others only regard as his opinion. This problem is demonstrated in Chapter Two of *Bones and Silence* where Dalziel’s witness statement differs considerably from that of the other two witnesses. His fellow officers are faced with the dilemma of deciding if Dalziel’s statement is actual fact or just his opinion.

Aristotle is clear that one does not gain knowledge of a thing by defining it. In *Posterior Analytics* he states that: ‘never yet by defining anything - essential attribute or accident - did we get knowledge of it’ (*Posterior Analytics* 2.3). In Part 7, Aristotle says that by defining something you cannot prove its essential nature, or even that it exists. This is particularly relevant to the character of Max in Barbara Nadel’s *Deadly Web* (2005). While Max can be defined by features such as name, gender, background and race, the reader is left unsure at the end of the story as to whether Max actually existed as most humans exist, at all. This is discussed at greater length in Chapter 5.

However, for Aristotle, intuition provided an equally valid route to ascertaining the truth as scientific knowledge. Further, 'no other kind of thought except intuition is more accurate than scientific knowledge' (*Posterior Analytics* 2.9). Most importantly, as the fundamental premises from which scientific knowledge is reasoned cannot themselves be proved by reason 'it will be intuition that apprehends the primary premises [...] If, therefore, it is the only other kind of true thinking except scientific knowing, intuition will be the originative source of scientific knowledge' (*Posterior Analytics* 2.19). This is extremely important as intuition forms a prominent weapon in the armoury of Andy Dalziel, Nadel's series detective Inspector Çetin İkmen and, if to a lesser extent, also to Quintin Jardine's series detective Deputy Chief Constable Bob Skinner. For example, in *Bones and Silence,* Dalziel's intuition renders him adamant that Swain is guilty, even in the absence of substantiating evidence. This is discussed in greater depth in Chapter 3.

Aristotelian Motion, Time and Change

For Aristotle, an object may change with respect to its quality, quantity or place. Change of place or state involves motion *(Physics* 56). For Aristotle, 'time is a measure of change' (*Physics* 109). Objects will remain at rest unless acted on by some agent. Therefore, every change requires a cause which may be external to the object or may come from within (*Physics* 167). Actions at a distance cannot occur within an Aristotelian worldview. Everything that is changed is changed by some agent with which it has contact and which itself remains unchanged (*Physics* 170). The 'chain of events' referred to by Holmes and Watson in many of the Sherlock Homes adventures, for example in 'The Naval Treaty' (1893) (Doyle 468), exemplifies this. Moreover, within detective fiction, a killer is not a killer until he or she has actually committed murder. He or she may be turned into a killer by an external agent, such as in *Inspector West Alone,* where Kennedy tries to force West to murder a colleague. A character may also be turned into a killer from within him or herself, for example, through latent greed as is Mrs. Peach in John Creasey's *Don't Monkey with Murder* (1942).

The Aristotelian paradigm favours rest over motion. Thus, 'everything of its own nature stays in its own place' (*Physics* 90). If a thing is not in its own place, it will move there by natural motion (*Physics* 78). Aristotelian motion is either in straight line, a circle or a

spiral (*Physics* 216). Aristotle's assertion that 'every movement is either forced or natural' (*Physics* 95) is illustrated by the position in which West finds himself in *Inspector West Alone*. Here he is being forced to move from the role of policeman to that of criminal. This is discussed in greater depth in Chapter 2.

Aristotelian motion continues until the body comes to rest as near as possible to its natural place. West's motion ends when he is returned to the bosom of his family, his natural home. In violent locomotion, the initial impulse given by the propellant is transmitted to the medium to allow the forward movement of the object. In being forced into becoming Mr. Kennedy's agent, Kennedy transfers his own evil nature into West. The medium may circle back to push the object from behind. West's hunting down of Kennedy and Kennedy's resultant capture by the police exemplifies this.

Aristotle's Theory of Causes: God as Prime Mover

Aristotle's Theory of Causes, as given in his *Physics*, dominated European and Near Eastern science from Antiquity to the late Middle Ages (Bynum 26). Aristotle recognized four Causes: '(1) the definable form, (2) an antecedent which necessitates a consequent, (3) the efficient cause, (4) the final cause' (*Posterior Analytics* 2.11). The Aristotelian meaning of the word 'cause' is 'that from which [...] a thing comes into being' (*Metaphysics* 5.2) and generally equates to the modern-day explanation of why an object or phenomena is as it is. Of these, the final cause was the most important. Thus, every phenomenon and occurrence in nature was teleological: it had a reason for being, a cause, and a purpose which benefited nature as a whole. Nature had but one goal: perfection.

Aristotle acknowledged God as the source of all motion in the universe – the prime mover 'which moves without being moved' (*Metaphysics* 12.7). The Aristotelian God is the final cause, who 'produces motion as being loved, but all other things move by being moved' (*Metaphysics* 12.7). Further,

> [t]he first mover, [God] then, exists of necessity; and in so far as it exists by necessity, its mode of being is good, and it is in this sense a first principle [...] that without which the good is impossible, and that which cannot be otherwise but can exist only in a single way. (*Metaphysics* 12.7)

The Aristotelian God has much in common with the Christian God in that he is benevolent, eternal, living and the source of all life.

> And life also belongs to God; for the actuality of thought is life, and God is that actuality; and God's self-dependent actuality is life most good and eternal. We say therefore that God is a living being, eternal, most good, so that life and duration continuous and eternal belong to God; for this is God. (*Metaphysics* 12.7)

In *Bones and Silence*, Dalziel is cast as God in the mystery play which causes both himself and others to draw the parallel between his acting role and the god-like aspects of his role as a detective. The concept of the detective as God is explored in more detail in Chapter 4.

The Shift from Aristotelian to Newtonian Paradigm

The Aristotelian paradigm gradually broke down under the impact of the non-anthropomorphic, quantitative, mechanistic and non-teleological conception of Nature associated with Copernicus, Galileo (1564-1642), Newton and Darwin (Bynum 27). Arguably, Aristotle had no real concept of speed, mass, force or temperature as the technology had not been developed to measure them accurately or even to register the existence of such phenomena. While it was not possible to develop sciences that were quantitative through observation with the naked eye alone, this was no barrier to progress within the biological sciences.

Moreover, the rediscovery of magical writings, such as those by Iamblichus (c.250BC-330AD), and Porphyry (c.234-305AD) led to an increasing legitimization of magic as a form of knowledge, although frowned upon by the Christian church because of its links with demonology (Henry 12). The resurfacing of these ancient treatises led to a questioning of what might be considered as useful knowledge. This question is raised in Nadel's *Deadly Web* (2005) where Max relies on ancient occult texts to develop his knowledge of non-empirical ways of knowing (see Chapter 5). These ancient writings rekindled an interest in arts such as mathematics and magic which Aristotelian philosophy had played down.

The sixteenth century saw attempts to link scientific disciplines to each other and to mathematics. Henry points out that:

> Galileo's attempt to link kinematics and natural philosophy resulted in the new science of motion and Rene Descartes' (1596-1650) mechanical philosophy attempted to base natural philosophy upon the certainties of geometrical reasoning. (Henry 5)

This attempt to subject natural philosophy to the rigours of mathematic techniques was one aspect of what has become known as the Scientific Revolution. An extension of this idea is found, for example, in the treatment of Aysu in Nadel's *Dance with Death* (2006). Aysu was murdered because her behaviour did not conform to the expectations of the society of which she was a part, illustrating the dangers of trying to confine individuals within rigid social laws.

The Scientific Revolution is not definable by exact dates, but its high-point was arguably reached in the seventeenth century. Characteristic features of the Scientific Revolution included an increased emphasis on experience and observation as ways of uncovering the truth; a desire to employ the growing knowledge of nature to benefit mankind and an increased mathematisation of nature and natural phenomena (Henry 14).

Aristotle regarded the universe as geocentric centering round a static earth. However, scientists such as Copernicus, were starting to believe that the sun, not the Earth, was the centre of the universe (Bynum 80). Copernicus's great contribution to astrology and indeed to the overturning of the Aristotelian paradigm was his insistence, in his *De Revolutionibus Orbitum Coelestium* of 1543, that his heliocentric model of the universe was the correct one '*because the mathematics demands it'* (Henry 17).

Francis Bacon (1561 – 1626) and the Development of Scientific Method

According to Martha A. Turner:

> Newton is the figure who has been most associated (in the English-speaking world at least) with the conceptual formulation of the mechanistic worldview, Bacon with establishing its methodology. (5)

The work of Francis Bacon, therefore, is particularly significant to this study because it established the scientific method which was to form the basis of forensic science, important to both the real and fictional detective. It is the method on which so many fictional detectives, notably Sherlock Holmes, based their own. In 1620, Bacon published *Novum Organum* in which he presented the grounds for favouring inductive

reasoning over deductive reasoning (Henry 43). Bacon's methodology eschewed the use of mathematics, demonstrating that there were other ways of developing an empirically based science. Like Aristotle, Bacon honoured the wisdom of the Ancients feeling that its apparent loss was to the detriment of natural philosophy.

Bacon saw 'men of experiment' as 'ants' because 'they only collect and use'. On the other hand, 'men of dogmas […] the reasoners, resemble spiders, who make cobwebs out of their own substance' (Bacon 93). Bacon saw hope for the world in a closer and purer league between these two faculties, the experimental and the rational (Bacon 93). Detective fiction frequently demonstrates that the truth is best reached through a combination of the experimental, as represented by the objective facts the forensic scientist can unearth, and the rational powers of the detective. For example, the forensic evidence of Sarah's guilt of the murder of Ron Neidholm in Jardine's *Fallen Gods* (2003) is wrong, because its interpretation has not employed reason (see Chapter 3).

Bacon was disappointed by what he saw as the lack of progress in science. For him, there was as yet 'no natural philosophy that is pure; all is tainted and corrupt' (Bacon 93). Human knowledge 'is a mere medley and ill-digested mass, made up of much credulity and much accident' (Bacon 94). This was partly because man had lost sight of the goal of science, which Bacon considered to be the acquisition of greater knowledge of the world (Bacon 78). Bacon wanted a new science not based on superstition and vague assumptions but on pure, provable facts which could be relied upon to present a true picture of the universe (Bacon 87).

For Bacon, 'by far the greatest obstacle to progress of science [is] that men despair and think things impossible' (Bacon 90). But 'the difficulty has its rise not in things themselves […] but in the human understanding, and the use and application thereof' (Bacon 92). This is often the case in detective fiction where the forensic evidence is interpreted incorrectly. A striking example of the narrowness of human understanding occurs in *A Killing Kindness* where the detectives misunderstand the words of the medium as '*... it was green, all green, all over me'* (1). Had they understood them correctly as '*It was Greenall, Greenall, over me'* (330), the murderer would have been known on the first page of the book and other lives saved.

Bacon was adamant that rigorous, careful, detailed observation, collection and collation of the facts was essential before the correct inference could be made from them. For Bacon, 'what in observation is loose and vague, is in information deceptive and treacherous' (Bacon 95). This is extremely important for detective fiction. For the fictitious detective the facts alone may not provide the solution, but even so, without the facts being correct, the true conclusion will never be reached. The solution of the crime is hampered, in Hill's *A Killing Kindness,* by Pascoe assuming the wrong time of death of the victim (209).

In order to rid scientific enquiry of its lack of rigour, Bacon developed a series of procedures which has become known as his 'scientific method'. By the standardization of scientific procedures Bacon hoped to produce a methodology which would smooth the path to true knowledge. Firstly, Bacon advocated the drawing up of 'apt, well arranged' 'Tables of Discovery'' (Bacon 97). Once these tables have been studied, 'understanding must not […] be supplied with wings' (Bacon 98), causing the scientist, (or the detective) to jump hastily to what might be erroneous conclusions. Detective Superintendent Tallantire, in Hill's *Recalled to Life* (1992) suffers the after effects of such haste when he 'like some intuitive scientist had made a mighty leap forward to his results and was now faced with the tedious task of filling in the necessary logical processes between' (82). Rather, the scientist must proceed in an orderly fashion 'from particulars to lesser axioms; and then to middle axioms, one above the other; and last of all to the most general' (Bacon 98). Bacon felt that by scaling up observations and discoveries regarding the particular, one could reach an understanding of the general.

Bacon's scientific method might be summarized as follows. Firstly, the correct goal must be set. Secondly, reliable data should be collected in as great a quantity as possible. This data must then be classified and appropriately organized. The data can then be studied and assessed. An explanatory theory would become obvious (Henry 37), which could be tested. A conclusion could then be reached. The importance of acquiring the correct data to Sherlock Holmes is evident when, in 'The Adventure of the Copper Beeches' (1892) he declares: '"Data! data! data! ... I can't make bricks without clay"' (Doyle 322).

Bacon's method was reliable because it proceeded by regular small steps. Moreover, these small steps were repeatable and could be followed for any scientific enquiry, thus

standardizing scientific experimentation as a practice. The work of Bacon and especially his scientific method are particularly important to this study because it still forms the basis of scientific experimentation today. One only has to compare the scientific method of Bacon with the areas in which today's forensic scientist needs to demonstrate competence to appreciate the extent to which today's science is still underpinned by the Newtonian paradigm and by Baconian methodology. In order to become registered, a forensic scientist's competence has to be assessed in the following areas:

1. Knowing the hypothesis or question to be tested.
2. Establishing that items submitted are suitable for the requirements of the case.
3. Confirming that the correct type of examination has been selected.
4. Confirming that the examination has been carried out competently.
5. Recording, summarizing and collating the results of the examination.
6. Interpreting the results in accordance with established scientific principles.
7. Considering alternative hypotheses.
8. Preparing a report on the findings.
9. Presenting oral evidence to court and at case conferences.
10. Ensuring that all documentation is fit for purpose. (White 15)

Ronald R. Thomas shows how forensic science was still deeply dependent on Baconian principles at the end of the nineteenth century. In his *Detective Fiction and the Rise of Forensic Science* (1999) Thomas examines 'the relationship between the development of forensic science in the nineteenth century and the invention of the new literary genre of detective fiction in Britain and America' (i). For Thomas:

> [a]t stake is not just the identification of a dead victim or an unknown suspect, but the demonstration of the power invested in certain forensic devices embodied in the figure of the literary detective – the fingerprint, the mug shot, or the lie detector, for example. (2)

The use of scientific method and the employment of scientific techniques and apparatus in the apprehension of the criminal is, for Thomas, an essential feature of the form. Moreover, the use of Newtonian-inspired techniques and apparatus is not only relevant to nineteenth century detectives such as Sherlock Holmes. Examples of its use in present-day detective fiction include DNA testing in Nadel's *Dance with Death* and the use of CCTV cameras in Jardine's *Autographs in the Rain* (2001).

The use of fingerprint techniques was of fundamental importance to the real and fictional detective alike. It was in 1894 that the London police first started taking

fingerprints of suspected criminals (Thomas 201). However, it was not until 1905 that the first case in England was solved using fingerprint evidence, that of the murder of Mr. and Mrs. Farrow by the brothers Alfred and Edward Stratton in Deptford (Wilson 113). Thomas goes so far as to suggest that the early acceptance of fingerprint evidence in England may have been partly as a result of Sherlock Holmes's faith in the veracity of fingerprint identification in *A Study in Scarlet* (Thomas 207).

Rene Descartes (1596-1650) and the Search for Truth

In 1637, Descartes published his *Discourse on Method.* In this collection of essays on optics, meteorology and geometry, Descartes traced his search for truth and especially how to distinguish the true from the false. This is important to detective fiction as it parallels the aim of the fictional detective. Descartes arrived at four simple procedural rules through which it was possible to discover true knowledge. Firstly, one should accept only that which is clear to one's mind. Secondly, larger problems should be split into smaller ones. In this he was a forerunner of the reductionist thought of the Newtonian paradigm. Thirdly, one should argue from the simple to the complex. Finally, everything should be carefully checked for errors (Descartes 15-16). This 'method' led Descartes to a new system of physics which was to become highly influential on the new mechanical philosophy of the emerging Newtonian paradigm (Henry 27).

Descartes, like Aristotle, was greatly influenced by Plato's belief that mathematics pre-existed the universe. The extent to which mathematical relationships such as pi, the Fibonacci series and fractile patters (where the overall shape of large scale physical features such as coastlines are built up from numerous repetitions of the self-same shape in miniature) pervade the natural world might be taken as evidence for this. In *Discourse on Method,* Descartes supported Copernicus's privileging of mathematics over observation, further weakening the influence of the Aristotelian paradigm whilst anticipating the Newtonian mathematisation of knowledge. For Descartes, the only use of observation was to confirm the correctness of mathematical models. Descartes did not trust the non-mathematical sciences, because 'as these borrow their principles from philosophy [he judged] that no solid superstructures could be reared on foundations so infirm' (*Discourse* 8). Descartes felt that the application of mathematical methodology to non-mathematical sciences could provide them with the strong foundations which

they lacked. This Cartesian insistence on the methodical approach to ascertaining true knowledge supports the scientific method of Bacon already discussed.

Descartes was one of the pioneers of deductive reasoning, which was to become an important feature of Sherlock Holmes's own method. Descartes held that everything is interconnected and that there is nothing that cannot be known providing that 'we abstain from accepting the false for the true and always preserve in our thoughts the order necessary for the deduction of one truth from another' (*Discourse* 16). This is important because, as well as reflecting Bacon's stepwise approach to method in the sciences, it foreshadows one of the precepts of Darwin's theory of evolution: that evolutionary change proceeds by small steps. An example of the fictional detective's employment of the 'step-by-step' approach can be found in Doyle's 'The Adventure of the Dancing Men' (1903) where Holmes uses it to discover that Watson does '"not propose to invest in South African securities"' (Doyle 511).

Cartesian Dualism held that man was composed of two separate and distinct types of substance, body and soul, each of which led man to a different type of knowledge (*Discourse* Part 4). He believed that the statement '*I think, hence I am'* was so certain as to constitute the first principle on which his philosophy was based. Further, '"I" that is to say, the mind by which I am what I am, is wholly distinct from the body' (*Discourse* 27). Descartes viewed the human body as a machine created by God (*Discourse* 44) anticipating the Newtonian mechanistic principle which viewed the whole world as a machine (discussed in more detail later). The mind was considered to be beyond the bounds of the mechanical philosophy (Henry 75).

In 1641, Descartes published his six *Meditations,* in which he expounds 'those considerations by which I feel persuaded that I have arrived at a certain and evident knowledge of truth' (*Meditations* 73). The Meditations extended the dualist principle to apply to all material things. In 'Meditation V: of the Essence of Material Things', Descartes describes how material things can be perceived through their quantifiable physical manifestation, for example through length, breadth and depth. In 'Meditation V1: of the Existence of Material Things' Descartes describes how material things can also be perceived through their subjective qualities such as their colour, sound and taste, which although still perceived through the senses, may call up different responses in

different individuals because they act on the imagination. This is particularly important in the Sherlock Holmes stories where Holmes and Watson frequently see the same physical object but react to it in a completely different way. For example, in 'The Adventure of the Blue Carbuncle'(1892) while Watson observers only an old hat, Holmes's imagination can deduce from it almost the complete circumstances of its owner (Doyle 247).

However, Descartes was a rationalist, believing that the only reliable kind of knowledge comes from pure reason, mathematics and logic, not through the senses which cannot necessarily be trusted. Reason must be employed to ensure that the senses do not deceive us into accepting that which is false as true (*Discourse* 32). Sherlock Holmes shows himself to be a rationalist when he declares in 'The Five Orange Pips' (1891), that:

> Problems may be solved in the study which have baffled all those who have sought a solution by the aid of their senses. (Doyle 225)

Descartes' concept of the same material thing producing a different response in different individuals is particularly important for detective fiction because it suggests that a completely objectivity viewpoint is not attainable. This is discussed in more detail in Chapter 3. This foreshadows the holistic paradigm's idea that we alter that which we observe and can therefore never be completely external to it.

The Newtonian Paradigm and Detective Fiction

In 1687, Isaac Newton (1642-1727) published his *Principia Mathematica Philosophiae Naturalis* which, for Henry (28), 'can be seen as the culminating point of the mathematization of the world picture'. Thus Newton proposed that the nature of the natural world, previously studied as natural philosophy, could be understood through the application of a few mathematically based laws and that in time these laws alone would explain all natural phenomena (*Principia* 382). Quantity replaced the quality of the Aristotelian paradigm in being the primary defining feature of objects and phenomena.

In the *Principia,* Newton elucidates his Three Laws of Motion.

Newton's First Law of Motion states:

> Every body perseveres in its state of being at rest or moving uniformly straight forward except insofar as it is compelled to change its state by forces impressed (Newton 416).

Newton's Second Law of Motion states:

> A change in motion is proportional to the motive force impressed and takes place along the straight line in which that force is impressed (Newton 417).

Newton's Third Law of Motion states:

> To any action there is always an opposite and equal reaction (Newton 417).

Equally important, the *Principia* also details many other fundamental principles on which the Newtonian paradigm (and indeed the modern-day sciences of physics and cosmology) are based. These include centripetal force, which Newton was the first to describe and the concept of the reversibility of time through which the orbits of the planets, the workings of a clock or of any mechanical machine can, in theory, go either backwards or forwards without altering the basic system (Prigogine xix). According to Newtonian principles, if one observes the exact position of a planet at any given time it is possible, using the appropriate equation, to predict its orbit for many months to come and also by working backwards to determine its position many months past. Newtonianism is therefore deterministic: present events determine future events exactly.

Lee Worth Bailey has noted how the ever increasing precision with which time can be measured has 'refined timekeeping […] into a different vision of time' (49). For Bailey, whereas time used to be measured by the rhythms of the day and the seasons or perhaps by the chiming of a church bell, 'the mechanical clock removed time into an artificially constructed framework' (49). Moreover, 'mechanical time is a cultural construct, a convenient approximation of nature's rhythms that only seems like an objective, factual system' (49). The mathematical exactitude of time is investigated by Hill, Jardine and Nadel alike and is discussed in greater detail in the relevant author chapters.

The reversibility of time is, arguably, fundamental to the basic structure of the classic detective fiction story. While time has moved forward from the committing of the crime to the discovery of the body, the detective's solving of the crime works backwards from the discovery of the murder to the murder itself. This process is illustrated particularly clearly in early detective stories, such as Edgar Allan Poe's 'Murders in the Rue

Morgue' (1831) where detection is an intellectual process akin to playing chess as noted by the unnamed narrator at the story's opening. The implications of the reversibility of time are far-reaching, instigating a worldview which saw the world as a clock (Hayles 16), with all its systems composed of discrete parts, functioning together with the regularity and order of Newton's Laws of Motion.

With regard to motion, Hawking (19) points out that the main difference between the beliefs of Aristotle and of Newton and Galileo with regard to motion is that Aristotle believed that for any body, rest was the preferred state and that there was an absolute state of rest. Newton realised that absolute rest did not exist, which also meant that it was impossible to give an event an exact position in space, because there was nothing against which to measure its position. Both Aristotle and Newton, however, believed in absolute time.

While owing much to Descartes, the *Principia Mathematica* displaced Cartesian laws of motion and disproved Aristotle's concept of the cosmos as consisting of separate sublunary and superlunary realms. By the time of its publication the shift away from the Aristotelian paradigm was advanced enough for the mathematical approach to understanding the workings of the world to have been generally accepted (Henry 28). Two new fundamental truths, that the world is mathematically organized and that the universe is heliocentric, had been established and thus one of the criteria for paradigm shift had been met.

Newton was a proponent of the philosophy of Reductionism. This, as well as reducing the world to a series of laws, proposed that the theories and hypotheses produced from studying the microcosm, when scaled up, would also explain the macrocosm (*Principia* 795).

Newton believed in the importance of rigid objective experimentation rather than placing reliance on subjective sense-experience (because it relies on the accuracy of the senses of the observer) which can be misinterpreted (Henry 31). This, in turn, led to the development of specific instruments for carrying out accurate objective measurements and quantification, instruments such as the microscope and the telescope. The development of the microscope opened up a whole new minute world which had previously been invisible. The Dutchman Antonie Van Leeuwenhoek (1632 – 1723), for

example, using simple lenses, was the first man to discover that human hair was composed of tiny overlapping plates (Wilson 283). Such discoveries were the essential forerunners of present-day forensic science.

Empiricism, defined by Bynum (121) as 'an ensemble of theories of explanation, definition and justification to the effect that our concepts or knowledge are derived from or to be explicated (or justified) in terms of sense-experience' became an important feature of the Newtonian world. The empiricist doctrine demands therefore that all knowledge derives from objective, scientifically verified experience, not from innate concepts (as suggested by Plato, Aristotle and Descartes) or intuition. However, detective fiction frequently demonstrates that the intuition of the detective is essential to recognize the need for empirical scientific examination, for example, of a crime scene. For example, in Jardine's *Fatal Last Words* (2009), it is Detective Inspector Sammy Pye's gut instinct that tells him that a murder has been committed despite the pathologist's initial assertion that Glover died from natural causes. It is partly as a result of Pye's disquiet that the pathologist reexamines Glover's corpse to reveal that he was indeed murdered.

Newton's *Principia* assumes an atomistic worldview, in which the world was comprised of discrete, unchanging objects in an empty space. Because movement was uniform and unidirectional (unless the body in question was acted on by some external force) the main relationship between events was causal (*Principia* 392). In Hill's *Under World* (1988) , for example, Ex- Deputy Chief Constable Neville Watmough recognized this principle of causation as 'he settled down to sorting things out into their true relations in the chain of causality' which had led him to resign (66, with a further reference to 'chain of causality' on page 68).

Within the Newtonian paradigm, the universe, and everything within it was conceived as a discrete object, something 'out there'. 'Out there' introduces the concept of the 'other' which in turn implies the separation of 'subject' and 'object' also characteristic of the Newtonian worldview. The world's separation and integrity meant that it was infinitely knowable. The concept of the 'other' and the related concepts of subjectivity and objectivity have an important part to play in detective fiction, for example in Hill's *Bones and Silence* and is discussed in greater detail in Chapter 3.

The Newtonian Concept of God

God was still seen as the underlying force ruling the universe within the Newtonian worldview.

> This most elegant system of the sun, planets and the comets could not have arisen without the design and domination of an intelligent and powerful being. […] He rules all things [...] as the lord of all. (*Principia* 940)

Similarly to the Aristotelian God, the Newtonian God is 'an eternal, infinite, and absolutely perfect being' (*Principia* 940) who is 'always and everywhere' (*Principia* 942). However, the Newtonian God seems rather more removed from the actual workings of the world than did the Aristotelian God. It is almost as though the Newtonian God initially created the world and then let it carry on according to set laws which he had ordained, without divine intervention. The Aristotelian God, on the other hand sustains the world by thought, without which it would (presumably) cease to exist (*Metaphysics* 12.7).

Man as Animal and Darwinian Evolution

When, in 1859, Charles Darwin (1809-1882) published *The Origin of Species* and in 1871, *The Descent of Man*, man finally lost his assumed status as the most important of God's creations in the universe. Darwin combined his own theories with those of other scientists to produce, for the first time, a more or less complete theory of evolution. Darwin applied these theories to the origins of man himself. This was new and highly controversial as it rendered man no more than just another animal, albeit, the most advanced.

The Origin of Species was extremely popular, running to six editions in Darwin's lifetime (*Origin* 34). Darwin summed up *The Origin of Species* as being 'one long argument' (435), namely, that all 'animals have descended from at most only four or five progenitors' (454) and further, that all 'animals and plants have descended from some one prototype' (455). Darwin regarded 'all beings not as special creations, but as the lineal descendants of some few beings which lived long before the first bed of the Silurian system was deposited' (458). This directly challenged not only the story of Adam and Eve as a true account of man's appearance on the earth, but also the Biblical timescale. According to Darwin the creation of the world took place over a much

greater period of time than the Biblical six days. Seeming to support Darwin's vision of evolution as forming a chain, Holmes philosophises in *A Study in Scarlet* (1887) that 'life is a great chain, the nature of which is known whenever we are shown a single link of it' (*Study* 23).

One important principle of Darwinian evolution is that individual members of any given species exhibit variation. The variations which most benefit the survival of the species can be passed from generation to generation through heredity. In this way, over long periods of time, species are changed to such a degree that some are transmuted into new species, while others die out completely (*Origin* 154). This process Darwin termed 'Natural Selection' (115). Because large numbers of offspring are produced within a limited area with finite resources of food and shelter, there results a 'Struggle for Existence'. This ensures that the strongest members of a species will thrive at the expense of the weakest, thus strengthening the species as a whole (*Origin* 16). The Darwinian struggle for existence led inevitably to the extinction of the species and individuals who were less successful at adapting to their ever-changing environment. In Doyle's *The Hound of the Baskervilles* (1901-2), the Darwinian struggle for survival is played out on the Moor in the final chapters of the book. The less highly-evolved escaped criminal Seldon, who is 'like a wild animal' (701) and Stapleton who is 'a creature' (713) and '[n]ot unlike a moth himself' (742) both perish, while Sir Henry survives.

The Italian physician, Cesare Lombroso (1835-1909) was one of many who used their (often erroneous) interpretations of Darwin's work to link criminality with physical appearance. Lombroso's work was highly influential in its day and his theories formed the basis of the new discipline of criminal anthropology. In 1879, Lombroso published the first English edition of *Criminal Man* which provided numerous charts and diagrams to apparently substantiate his claims. Lombroso's work included the dissection of the brains of criminals to try to establish whether defects in brain structure could account for criminality. In one such brain he found a depression also present in the brains of rodents. This provided for him the link between the animal and the criminal. The extensive Darwinian imagery to be found in Sherlock Holmes's adventures echoes this apparent link. The relationship between physical features and criminal disposition is

discussed in relation to Doyle's *The Sign of Four* (1887) and Dorothy L. Sayers's *Whose Body?* (1923) in Chapter 2.

Although Darwinian evolutionary theory may have brought about a complete change in the concept of man and his place in the world, Turner has pointed out that this still falls within the Newtonian mechanistic view of the universe. She states that 'Matter, motion, regular laws – these elements are as basic to Darwin's approach as they are to Newton's' (Turner 26). Yet at the same time as contributing to the Newtonian paradigm, Darwin's work also speeded its demise. Writing in 2006, Wheeler notes that 'it is now clear that the gene-centred view of evolution by which neo-Darwinists have attempted to reduce the complexity of human life to a genetic determinism is seriously incomplete' (Wheeler, 2006: 14).

Darwinian evolution, like any of the biological sciences, was contrary to the precepts of the Newtonian paradigm in that it did not have an empirical base. While empiricism and Baconian scientific method were increasingly regarded as the only way to discover the truth of the universe, it was not possible to test Darwin's evolutionary theory in this way. While it was possible to collect geological specimens, there was no scientifically acceptable (which increasingly meant mathematical) way of proving their age. The mathematical exactitude expected in the physical sciences (and ever more in chemistry) was not applicable to the geological or biological sciences.

Allied with the growing interest in Darwinian evolutionary theory was an increased fascination with origins, especially in heredity. This interest gathered momentum during the Victorian period and is still with us today. Similarly, concerns regarding identity and heredity are of as much concern for today's detective fiction, as they were for Sherlock Holmes. For example, the issue of the genetic make-up of Kemalettin and of Aysu's baby in Nadel's *Dance with Death*, written in 2005 is as important to the story as is the real identity of Stapleton as the disenfranchised Baskerville in Doyle's *The Hound of the Baskervilles*.

The Weakening of the Newtonian Paradigm

As the scope of the Newtonian worldview widened through concepts such as Darwinian evolution, its influence weakened. By the beginning of the nineteenth century, partly due to developments in physics, many axioms fundamental to the survival of the

Newtonian paradigm, such as the reversibility of time, were coming under critical scrutiny. The evolution of the laws of thermodynamics, especially refinements to the Second Law by the Scottish physicist William Thompson, Baron Kelvin (1824-1907) showed that as systems move from order to disorder, time is not reversible. Hawking uses the analogy of a cup falling and breaking: the pieces will not jump back off the floor to reassemble themselves (Hawking 160).

This increase in disorder is an example of the arrow of time which distinguishes the past from the future. Increasingly, this concept is mirrored within detective fiction. In earlier examples of the genre, such as those by writers including Agatha Christie, order is maintained. For example, on *Murder on the Orient Express* (1933), time is reversed as a past wrong is avenged on a train stranded by snow, Poirot solves the mystery and the train continues on its journey. However, in more recent examples, time is irreversible. In Hill's *On Beulah Height* (1998), the flooding of the valley, destroying the village to create a reservoir ensures that things will never be the same again.

The concept of the 'billiard ball' structure of the atom was increasingly challenged during the final years of the nineteenth century and the initial years of the twentieth. Within the Newtonian worldview the atom had been considered as solid and indestructible, but the discovery of X-rays (1895), radioactivity (1896) and the electron (1897) meant that this view was no longer tenable. Rutherford's experiments in 1911 demonstrated that the specks of positive charge within an atom must be located in a highly concentrated form at its centre, and suggested the 'solar system' model of the atom (Hawking 70).

The Work of Albert Einstein (1879-1955)

In 1905, Einstein published his Special Theory of Relativity followed in 1916 by his General Theory of Relativity. These theories showed that Newton's Laws of Motion were only approximately correct, because although accurate at normal speeds (the inaccuracy is so small as to be unimportant) they did not describe the situation at near the speed of light (*Special Theory* Ch VII). Einstein's Special Theory of Relativity suggested that the speed of light is fixed and that time and distance are relative depending on the position of the observer (*Special Theory* Section 11). This was

opposed to Newton's Laws which held that the speed of light was relative, depending on the position of the observer and that time and distance were fixed.

One far-reaching implication of Einstein's theory was that there is no such thing as an objective observer; the observer influences that which he observes, or, 'the act of playing the game has a way of changing the rules' (Gleick 24). This further implies firstly, that the world is an interconnected whole so that dichotomies of space/time, matter/energy, gravity/inertia, cease to exist, becoming just different aspects of the same phenomena. Secondly, there is no such thing as observing this interactive whole from a frame of reference removed from it (Hayles 49). The impossibility of the position of objective observer is of frequent concern to detective fiction. For example, Dalziel's position as investigating officer is compromised in *Bones and Silence*, by his being simultaneously inside and outside the investigation of the murder of Gail Swain. This is discussed at greater length in Chapter 3.

The disintegration of the inside/outside barrier is also noted by Hayles to have implications for the reader, as 'modern fiction tends to place us within rather than outside the frame' (37). The reader is therefore a part of the detective fiction which he reads. An example of this arises when, in Nadel's *Deadly Web*, and Hill's *A Killing Kindness* complete closure is not reached within the novel, leaving the reader to decide the real outcome.

Quantum Theory

In 1913, working with Rutherford at Cambridge, Niels Bohr (1885-1962) published his *On the Constitution of Atoms and Electrons* in which he stated that the electrons within the atom must circulate round its nucleus in clearly defined orbits (Bohr 1). To move from one orbit to another, electrons needed either to gain or loose large packets or 'quanta' of energy (Bohr 8).

Quantum theory has had far-reaching implications. Not only has it required a reconsideration of concepts of momentum and position, it has also altered our understanding of concepts of 'either/or' and 'true' and 'false' (Polkinghorne 37). In the quantum world, an electron does not have to be 'here' or 'not here'; it can exist in intermediary states. The terms 'here' and 'not here' are no longer mutually exclusive. An extension of this, developed within chaotic systems theory (see below) which is of

great interest to detective fiction, is that it allows not only for 'true' and 'false', but also recognises the 'maybe'. Further, it allows the possibility that approximate truth might replace absolute truth (Smith 71).

A further implication is that in the future we might expect not to be able to form definite conclusions about the nature of the universe as these might not exist. Irrefutable conclusions might not be possible in detective fiction either. Whilst the effect of an unsatisfactory sense of closure on the role of the reader has been noted above, the fictional detective might also experience a frustrating lack of closure. For example, in Hill's *Good Morning, Midnight,* it is not possible for the detective team to arrive at the absolute irrefutable truth regarding the events of the death of Pal (senior).

Another important aspect of quantum theory is that the particle of Newtonian physics is replaced by the concept of the field. Hayles notes another implication of this: 'that the whole is composed of parts but cannot be reduced to them' (24).

> This immediately involves the author in paradoxes of self-referentiality, for the enabling premise that the text is part of the whole also implies that the whole can be contained within the part. (24)

Interestingly, the relationship between the whole and its parts is itself referred to several times in Hill's *A Cure for all Diseases* (2008). For example, in an email to her sister, Charlie states that 'to cure the whole we must start with the smallest part' (13). This perhaps suggests an interrelationship between science, detective fiction and the real world: that they exist within each other and are not separate.

While self-referentiality is frequently referred to by literary scholars as an aspect of golden-age detective fiction (Rowland 12, Horsley 41), it is still apparent in the works of many present day authors. For example, in Hill's *A Cure for All Diseases*, Dalziel asserts that 'that only happened in detective stories' (that one piece of crucial information solved a case) (241).

A New Worldview for the Twenty-First Century – The Holistic Paradigm

For Hawking, 'the eventual goal of science is to provide a single theory that describes the whole universe' (12). However, it is recognised within the holistic paradigm that it will probably never be possible to construct a total view of the world and how it

functions as we are an influential part of the very worldview which we are trying to observe. The holistic paradigm recognises the validity and usefulness of many different theories and knowledge systems. These together, form interactive 'strata of realities' within our current understanding of the universe which will present a more complete view of the universe than can ever be reached by adherence to one theory alone (Polyani 35).

Whilst, by its very nature, the holistic paradigm is all-inclusive, dominant trends or streams of thought are identifiable within it. Among current theories inspiring research within the holistic paradigm are chaos theory, which encompasses the physical sciences, and the biologically based complexity theory. While the Newtonian paradigm regarded the world as a closed linear system, the holistic paradigm recognizes that the universe functions as an open, adaptive nonlinear system.

Within the holistic paradigm, many theories surrounding relativity and quantum theory are still viable. These include the notion that complete separation of the observer and the observed is not possible and that time might exist in different states. Hawking identifies three different 'arrows of time': the thermodynamic arrow, in which disorder increases; the psychological arrow, the direction in which we feel time passes and the cosmological arrow of time in which the universe is expanding (161). Further, the notion that boundaries such as those between space and time, and mass and energy are not necessarily rigid, remains tenable within the holistic paradigm.

Order within Disorder - The Emergence of Chaos Theory

In the formulation of its laws Newtonian mechanistic science had ignored many quirks of nature in order to present an ordered, regular view of the universe. The concept of Chaos Theory was founded in 1963 with the publication of the paper *Deterministic Nonperiodic Flow* by the pioneering American mathematician and meteorologist Edward Lorenz (1917 – 2008). For James Glieck, one of the foremost workers in the field, 'chaos is a science of process rather than state, of becoming rather than being' (Gleick 5). Chaos theory seeks to incorporate inconsistency and unpredictability within it, arguing that ignoring these numerous inconsistencies creates an unrealistic view of the universe.

Leonard Smith defines 'three properties found in chaotic mathematical systems; chaotic systems are nonlinear, they are deterministic, and they are unstable in that they display sensitivity to initial conditions' (Smith, L: 16). Nonlinearity implies that responses within the system need not be proportional to the stimulus producing them. The sensitive dependence exhibited by chaotic systems has become better known as the Butterfly Effect, where miniscule changes can have huge effects. A related characteristic of chaotic systems is that systems starting off from two very similar initial states can develop in radically different ways and thus end up in totally different positions. This might be considered true of Maciver family members in Hill's *Good Morning, Midnight* (2004) as discussed in Chapter 3.

For chaotic systems, time is irreversible. The reversibility of time which was a feature of the Newtonian paradigm may be applied to closed systems, but in the complex open systems which characterise the holistic paradigm, time is not reversible. The Second Law of Thermodynamics claims that energy is gradually being lost from the universe: it is dying. Therefore it is not possible, as thought in Newtonian systems, that any moment in time is the same as any other. As Ilya Prigognine, one of the early pioneers of complexity science specialising in flow dynamics, has said: 'You cannot run the universe backwards.[...] Events over the long term cannot replay themselves' (Prigogine xix).

Complexity Science and the Human Condition

Complexity science is the study of complex adaptive systems. For Wheeler 'complexity theory tries to understand the movements and developments of any complex systems which are capable of evolving in time' (1999: 142). It applies mainly within the area of biological systems and produces models of those systems using advanced computer programmes. According to Wheeler, complexity science is biologically based because 'all open complex adaptive non-linear systems […] have the characteristics of biological evolution as first described by Darwin' (2006: 52). Work led by the Viennese biologist Ludwig von Bertalanffy (1901 – 1972) preferred to understand living things interacting as complex systems, rather than Newtonian discrete particles (Wheeler, 2006: 52).

Bertalanffy not only saw individuals as complex interactive systems, but the society of which they were a part as functioning as one also. His book of 1969, *General Systems*

Theory: Foundations, Development, Applications led the way for the development of what we know today as Complexity Theory, one of the fundamental elements of the holistic paradigm. Complexity science, then, relates closely to the human condition applying not only to the individual, but to the social interaction and groupings which so often form the central concerns of detective fiction. An example of this might be the relationships within the Maciver family in Hill's *Good Morning, Midnight.* One of its precepts is the interconnectiveness of everything. Again for Wheeler 'the living world is a vast interconnected, interdependent web of relations' (2006: 72).

General Features of Complexity Science

Complexity results when simple dynamic systems interact to form a system which is greater than the sum of its parts. Scientists try to understand complexity by defining its constituent simple components and studying the way they interact. Within detective fiction, the characters could be considered as dynamic systems. The detective does as the scientist does. He examines the characters and their behaviour and the way in which they interact to see if he can find out how their interactions fit in with the plot. The characters form a complex system, for example in Elizabeth Ferrars's *Don't Monkey with Murder* (1942), where it is an understanding of the relationships between the characters which leads to the solving of the crime (see Chapter 2).

Complex adaptive systems learn, whereas complex non-adaptive systems, that is, chaotic systems, do not. If the detective force intervenes early enough the system may become adaptive, that is the characters change their behaviour in response to the intervention of the detective. Complex adaptive systems also have the ability to internalise information, to learn and adapt themselves to changes in the environment. An example of this from detective fiction might be found in Ruth Rendell's *The Veiled One* (1998) where Burden's treating Clifford as if he were the murderer effectively turns him into one.

In 1979, James Lovelock published *Gaia: A New Look at Life on Earth.* This book elaborates on the holistic paradigm's concept of the universe (and the earth in particular) as a complex, adaptive system, calling this concept the 'Gaia Hypothesis'. Gaia encompasses a recognition of wholeness, that the world has 'a composite identity' (Lovelock x) which is more than the sum of its parts. Behaviour of life on earth affects the physical and the biological landscape in a way that alters the earth's fitness to

support life. Feedback is an important aspect of these interactions (Gribbin 206). This is demonstrated in Nadel's *Dance with Death* (2006), where the inhabitants of Cappadocia are affected by its strange, lunar landscape.

In line with his aim to present the concept of Gaia in a scientific light, Lovelock tackles the problem of death by reference to Newton's Second Law of Motion. Stating that we are all open systems, and that entropy (disorder) within open systems must increase, Lovelock concludes that we are all doomed to die. He tempers this by saying that within the holistic worldview, which encompasses everything, whereas the individual may die, families and species will live on and evolve (Lovelock 117). Newton's Second Law of Motion is an important element in the deaths of Greenall, his daughter and her husband in Hill's *A Killing Kindness*, as they are all killed as a result of moving vehicles.

Lovelock's book ends on a more positive note showing how, because our instincts favour survival, we value pleasure and beauty. Our love of nature will cause us to protect it and therefore ensure our survival. The ending of Nadel's *Deadly Web* (2005), where Hulya is full of hope and excitement regarding her pregnancy, despite the threat of war with Iraq, offers a good illustration of the promise of continued life on earth. Lovelock adds a final word of warning. Gaia can only take so much. The balance can only be tipped so far before Gaia will not be able to restore it and maintain life on Earth. The idea of the world existing in a very fine state of balance appears in Nadel's *Deadly Web* where there is frequent mention of the world becoming dark and unbalanced (322, 340 for example).

Closely related to the Gaia Hypothesis is the idea proposed in Michael Polyani's *The Tacit Dimension* (1967), that we carry within us traces of all that has gone before as the concept that 'you know more than you can tell' (Polanyi 4). Genetically, we carry the genes of our ancestors. But at a deeper level we also carry within us all that has gone before in a kind of memory only tacitly known via the unconscious. This is important for detective fiction in that it suggests a source for the gut feelings and intuition of the fictional detective. Echoes of the myths, legends and beliefs of our ancestors survive within us as, perhaps, gut reactions and intuition. They are flash-backs to a time dominated by the Aristotelian worldview, when people had a different relationship with the world from the one of exploitation and capitalism which, arguably, dominates our

present-day relationship. Developing Einstein's work on relativity mentioned earlier, Polyani's work also challenges the Newtonian notion of a truly objective science.

The holistic paradigm also restores the importance of forms of knowledge other than the (in the Newtonian sense) strictly scientific. It recognizes that science, nature and religion are basically the same with the same goal. They are contiguous. Wheeler points out (2006: 94) that until the nineteenth century science meant knowledge in general and so included religion, philosophy and anything which furthered our understanding of the world in which we live. Nadel's detective fiction is particularly interesting in this context as it frequently examines the interplay of magic and science, for example in *Deadly Web* (see Chapter 5).

Other features of the holistic paradigm include the privileging of process over events, movement over stasis, relationships over entities and development over structure. Within the holistic paradigm, knowledge is seen as a process, not just as the acquisition of as large a number of facts as possible. The privileging of process over event has far reaching implications for detective fiction. For example, Ellie and Peter's marriage in Hill's *Bones and Silence* is portrayed as an ongoing process of personal development (see Chapter 3).

The science of the holistic paradigm is summed up by Wheeler as 'a personal, experiential, informed commitment to something universal, impersonal and beyond mere self and a faith in the reality of the 'more to be known' in nature.' (2006: 99)

Conclusion

> Rationality, logic and empiricism have provided us with many advantages in our struggle to survive, but, inasmuch as these have been over-valued, and the affective life which underpins them under-valued and seen as inimical to reason, they have encouraged and given succour to views of life which, when really understood, are actually intolerable for most human beings. (Wheeler, 1999: 157)

> A world which could both understand the importance of the emotions, and the creativity and 'hunch-like' nature of human reasoning and see the human as a complex being interacting within larger complex systems would be a far kinder and more interesting world than that imagined and promoted by utilitarianism's ice-cold

> and inhuman rationality. (Wheeler, 1999: 159)

Wendy Wheeler's 1999 publication *A New Modernity, Change in Science, Literature and Politics,* seemed worth quoting at length as the first extract sums up the legacy of the Newtonian paradigm while the second offers a preferable vision of a world operating within the holistic paradigm.

Wheeler sees the twenty-first century as 'the period during which certainties – especially about the value of science, rationality and progress - began to be called into question' (1999: 7). Wheeler argues that it is not our championing of reason above all else that has led to constraints on our freedom but rather that 'our idea of rationality has been far too narrow' (2006: 158). One aim of the following chapters is to examine ways in which contemporary detective fiction is helping to broaden our understanding of the world beyond the confines of Newtonian science and in so doing encourage the reader to adopt a wider, more holistic, view of the modern world.

Detective fiction also asks us to reconsider and expand our views of rationality. For Wheeler, 'our modern idea of rationality [...] offers only a very limited account of reason' (2006: 149).

> [I]t is only when reason is taken at face-value as the bloodless, or dispassionate, operation of a mind divorced from an affective body, or, in other words, reduced to an ends/means calculation of special partisan interests, that atrocities seem rational and justifiable. (2006: 149)

Surely the fictional murderer of the detective novel is the embodiment of such cold, calculating reason, his rational and justifiable atrocities being the taking of the life of the victim. Although most real-life murders are not cold blooded but passionate and intimate, fictional murders tend to be rationalistic because the genre needs them to be cleverly concealed. The fictional detective, therefore, has to demonstrate an equal capacity for reason. What the modern-day detective brings to the situation which was lacking in the Holmes stories and which, in the end, is often the murderer's undoing, is emotion, feeling, intuition, and above all - understanding.

Chapter 2

Scientific Paradigms and The Evolution of the Genre:

Classic Detective Fiction from Conan Doyle to P.D. James

Within the history of classic detective fiction it is possible to identify two contrasting and yet intersecting areas of influence on the genre. Firstly, classic detective fiction is influenced by its literary history and secondly, it is influenced by the historical, political and social context within which it is written. The aim of this chapter is to offer a chronological assessment of the changing relationship between these two streams of influence through an examination of works considered representative of various stages of the genre's development.

The historical, political and social context within which a work is written includes contemporary attitudes to science contained within the dominant scientific paradigm (or paradigms) of the time. This study deals solely with contemporary attitudes to science taking them as indicative of the historical, political and social context within which the representative novels were written.

Further, this chapter aims to demonstrate how the interaction of the Aristotelian, Newtonian, and holistic scientific paradigms with the literary history of the genre, has helped to mould the detective fiction novel into its present form. The Aristotelian, Newtonian and holistic scientific paradigms have been discussed in detail in Chapter 1. It was therefore felt unnecessary to offer any further explanation of their defining characteristics here. It was, however, deemed expedient for the sake of clarity to open this chapter with a definition of the detective fiction genre itself as the term applies to this study. This has been derived from the critical works of important scholars of the genre. This chapter also hopes to demonstrate how shifts from one paradigm to another are reflected in changes within the detective fiction genre.

This thesis is concerned solely with the detective fiction genre in print. Therefore, the research excludes any consideration of televised detective series or of fictional detectives who appeared first on television or on film. This is not because they are not considered influential. Rather, time and space places them outside the scope of this

present study. It is an area which would perhaps repay investigation at a later date in another study.

The representative works chosen for this purpose are: Arthur Conan Doyle's *The Sign of Four* (1890), Dorothy L. Sayers's *Whose Body?* (1923), Elizabeth Ferrars's *Don't Monkey With Murder* (1942), John Creasey's *Inspector West Alone* (1950) and P.D. James's *The Black Tower* (1975). These works were chosen because they demonstrate particularly well the relationship between detective fiction and scientific paradigms at the time they were written. It is hoped that this chapter will prepare the ground for the following chapters on the work of Reginald Hill, Quintin Jardine and Barbara Nadel. It will show how contemporary detective fiction novels of Hill, Jardine and Nadel fit into the classic detective fiction tradition whilst at the same time engaging with the major issues of the day and reflecting the dominant mood of the age.

The Classic Detective Fiction Genre – A Working Definition

Stephen Knight's chronological study of crime fiction entitled *Crime Fiction 1800-2000: Detection, Death, Diversity* (2004), divides the development of the genre into three periods. Knight's first period is that leading up to the Sherlock Holmes stories of Arthur Conan Doyle, a period when the detective became central to the story. The second period dates from Conan Doyle up until the Second World War when death became the form's central concern. Knight's third period traces the development of the genre from the Second World War up until 2000. Knight feels that the majority of works dating from this last period no longer conform to any of the previous patterns which defined detective fiction. This chapter, while acknowledging the numerous and extensive changes apparent within the genre during this period, hopes to identify unifying elements which still persist in twenty first century examples of the genre.

In his Preface, Knight highlights the difficulty of classifying and naming what has now become the large and diverse genre into which 'crime fiction' novels fall (xii). Indeed, Knight uses the term 'crime fiction' because while:

> there are plenty of novels (including some of Christie) without a detective and nearly as many without even a mystery (like most of Patricia Highsmith's work). There is, though, always a crime (or very occasionally just the appearance of one). (xii)

However, Knight calls the form which most easily equates to classic detective fiction the ‘clue-puzzle’ because it places the emphasis on the solving of the mystery rather than to the crime itself (81).

Knight comments on the willingness of many detective stories to articulate and engage with contemporary social problems. They recognise ‘threats to order, including ones based on gender, sexuality, race and class’ (47) whilst remaining ‘politically conservative’ (47). Gill Plain similarly notes that: ‘crime fictions remain […] culturally potent at the beginning of the twenty-first century’. One possible reason cited by Plain is ‘the genre’s concern with the transgression of boundaries’ (6-7). The setting of Hill’s *Good Morning, Midnight* (2004) against the backdrop of the Iraq war provides a good example of the interaction between detective fiction and real social concerns.

To Julian Symons, in his history of the detective fiction genre *Bloody Murder: From the Detective Story to the Crime Novel* (1972), the form is called simple ‘the detective story’ (13). For Symons, the basic structure of the classic detective fiction story was set by Conan Doyle’s Sherlock Holmes stories: ‘[t]here was to be a crime or an attempted crime, a problem, [and] a solution reached through the skill of the detective’ (63). Symons also points out the centrality of the detective within the form (74).

For Symons, the figure of the detective himself (or herself) usually conforms to one of two types. Firstly, the detective can be an often aristocratic amateur, such as Sayers’s Lord Peter Wimsey. In this case, the amateur detective’s elevated class leaves him financially independent. He is therefore free to indulge in detecting as a hobby, whilst his class carries with it enough respect to command a certain degree of deference from his lower class police counterparts (as well as the general public), which allows him freedom to delve into cases apparently without restriction. Detectives like Agatha Christie’s Hercule Poirot, and Sherlock Holmes although not aristocratic by birth, had gained for themselves such a reputation as detectives that this alone facilitated their inclusion in any investigation worthy of their great skill. For them detection is more akin to a profession than a hobby.

Secondly, the detective could be a professional member of the official police force, as is, for example, Creasey’s Inspector Roger West. This was generally a later development, as arguably it relied to a large degree on the recognition of the role of the

professional police force and its operatives by the readership (Scaggs 18). In this instance, the professional policeman can act alone, (as R.D. Wingfield's Inspector Jack Frost) or with a partner (as Hill's Superintendent Andrew Dalziel and Peter Pascoe). In either case, though, the lead detective is an independent thinker who takes the main initiative in the investigation, often scorning the opinions of his superiors and resenting the restrictions which they try to place on him and his investigation. The strained relationship between Dalziel and Chief Constable Trimble in Hill's *Bones and Silence* (1990) provides a good illustration of this.

Commenting on the personality of the detective, Sayers in her Introduction to *The Omnibus of Crime* (1929, reprinted in Winks) points out that 'for several generations eccentricity was highly fashionable among detective heroes' (57). Holmes could certainly be described as eccentric. For example, the depth and scope of his knowledge is noted with astonishment by Watson in *A Study in Scarlet* (1887) as much for what it excludes as for what is included (Doyle 21). Holmes's use of cocaine, his passion for the violin, his reclusiveness and his interest in scientific experimentation set him largely apart from the normality demonstrated by the character of Watson.

The method of detection in classic detective fiction varies from the purely intuitive (for example, of Edgar Allan Poe's (1809 – 1849) August Dupin in *The Murders in the Rue Morgue* (1841)), to that which relies, or appears to rely, far more on the use of scientific techniques and methodology (for example, Jardine's *Autographs in the Rain* of 2001). Although much is made of Holmes as a scientific detective, particularly in *A Study in Scarlet* (1887) and *The Sign of Four* (1890), it is arguably Holmes's scientific frame of mind and his method, his 'Science of Deduction and Analysis' (Doyle 13) which are scientific, rather than the techniques which he employs. This is discussed in greater detail later in this chapter.

Closely allied with the Newtonian paradigm, an influential, reliable 'scientific method' was devised by Sir Francis Bacon (1561 – 1626), appearing in his *Novum Organum* of 1620. As this was discussed in detail in Chapter 1, only an outline of its main points will be offered here. Briefly then, Bacon's 'scientific method' required setting the correct goal, collecting reliable data which should be classified, appropriately organized, then studied and assessed. A reliable conclusion supported by concrete scientifically

verifiable evidence, could then be reached. The similarity between Bacon's scientific method and the method of fictional detectives such as Holmes implies that a certain scientific methodology is a prerequisite of the detective fiction genre.

Summing up, for the purposes of this study the definition of the classic detective fiction genre is a form in which a puzzle, usually a murder, is presented. This puzzle is then solved by the detective (usually accompanied by a partner) who may be professional or amateur. The solution of the puzzle probably involves the employment of science, either overtly, by using scientific techniques of fingerprinting (as in Doyle's 'The Adventure of the Norwood Builder' (1903)), or DNA (Nadel's *Dance with Death* of 2006) or covertly. Covert use of science might include the scientific frame of mind and mental disposition of the detective, such as that of Nadel's Inspector İkmen (discussed in more detail in Chapter 5). There is frequently an explanation at the end of the story, often given by the detective, of how the crime was committed and solved. The classic detective fiction genre is a form in which a crime and its solution is the main focus of the work with the detective the main character. As such, it is clearly distinguishable from novels which contain a murder, but are not defined by it, such as Wilkie Collins's (1824-89) *The Moonstone* (1868) and Charles Dickens's (1812-1870) *Bleak House* (1853).

Ancient Beginnings and the Importance of Myth

Sayers, whilst noting that the origins of detective fiction lie within very ancient traditions , also comments that 'the detective-story has had a spasmodic history, appearing here and there in faint, tentative sketches and episodes, until it suddenly burst into magnificent flower in the middle of the last [nineteenth] century' (Winks 53). Many experts (including Symons (27), Sayers (54) and John Scaggs (8)) have variously identified examples of these 'faint, tentative sketches and episodes' in the Bible, the Jewish Apocrypha, Aesop's Fables, the Aenead and tales from the folk-law and mythic tradition of a variety of countries.

The indefinable age of myth and its origins as part of an aural tradition place it outside the realms of literary history. The influence of folk law and myth on the origins of detective fiction has been noted by Sayers (Winks 53). The function of myth, viewed in the context of a science based discussion is as a pre-Newtonian way of making sense of the world which would seem to root it firmly within the Aristotelian paradigm.

However, Lee Worth Bailey (2005) has proposed a link between myth as a symbol of 'the soul's collective passions such as […] conquests, Romantic adventures, or heroic contests' (6) and the 'vast sea of unacknowledged, influential desires, passions, and quests for spirituality' (7) which lies at the heart of much science and technology. Bailey would therefore seem to be suggesting a fundamental link between myth and the science and technology of the Newtonian paradigm. This interaction between detective fiction, myth and science and technology makes some consideration of this tripartite relationship relevant to this present investigation.

The fluidity of myth and the counterproductiveness of trying to reach an all-embracing definition of the genre has been discussed by Laurence Coupe, in his 1997 publication *Myth.* Coupe's work offers an overview of the theory of myth, its main themes and of myth-making. It explores uses made of the term whilst discussing its association with other cultural movements such as modernism, postmodernism and history, and other art forms. For Coupe, while '[m]yth is paradigmatic […] there is no pure paradigm' (5). Suggesting that there are several different types of myth Coupe points out that within myth, however, 'we are constantly aware of an overreaching framework of fertility, cosmology, deliverance and superhuman heroism' (5).

The holistic paradigm recognises the important role that different types of knowledge, including myth, have to play in producing a more complete picture of the world. As Wendy Wheeler comments:

> Our myths tell us important things about the nature of our being and our indwelling, and we can certainly learn much from both our own mythologies and from the mythologies of other cultures. (71)

Detective fiction can fulfil the role of reasserting the relevance of myth within today's society and so support the holistic paradigm's favouring of inclusiveness. For example, an investigation of the continuance and relevance of myth within today's society forms the sub-plot of Nadel's *River of the Dead* (2009) in the characters of the Master of Sharmeran, the snake Goddess and Gabriel Saatch, 'the living saint' (114), who is apparently immortal.

The links between myth and the work of the naturalist Charles Darwin (1809-1882) are discussed in detail by Gillian Beer in *Darwin's Plots* (1983), especially in her Chapter

4. Darwin's seminal works on evolutionary theory, *The Origin of Species* (1859) and *The Descent of Man, and Selection in Relation to Sex* (1871), have been dealt with in more detail in Chapter 1. Darwin's work arguably supported the Newtonian paradigm by aiming to demystify creation, replacing creation myths with a rational explanation of man's presence on earth supported by empirical science.

Some apparent links between mythical explanations of man's origin and Darwinian evolutionary theory also remain. Coupe notes the importance of 'the symbolism of the sea' in many myths (4). The sea is also important in Darwinian evolutionary theory as the source of all life. Darwin believed that 'the most ancient progenitors in the kingdom of the Vertebrata […] apparently consisted of a group of marine animals' suggesting that the first life from which man has evolved originated in the sea (1871: 212). The imagery of the sea, water and primeval storms is an important feature of several Holmes stories, such as 'The Five Orange Pips' (1891). Here John Openshaw arrives at the rooms of Holmes and Watson bringing with him 'some traces of the storm and rain' (218), as though the storm has disgorged him from the maritime world whence his evolution began. The relevance of evolutionary theory to classic detective fiction is discussed at greater length later.

The influence of the deliverance myth can also be found in classic detective fiction. For Coupe, the deliverance myth is an eschatological 'implying a movement of time towards a decisive culmination'(74). He sites the Bible as providing the archetypal deliverance myth in the Book of Exodus and the Book of Revelation (74). The classic detective story similarly moves towards a decisive culmination, whether it be the dénouement of, for example, an Christie novel, such as *Murder on the Orient Express* (1934) or Holmes's detailing how he arrived at the solution of the case, such as his explanation of his breaking of the code in 'The Adventure of the Dancing Men' (1903).

Tzvetan Todorov (1978) discusses the two stories of detective fiction in his *Genres in Discourse*: 'the story of the crime, which is missing, and the story of the investigation, which is present' (33). Closure is therefore two-fold, as the story of the crime is revealed through the story of the investigation. Thus the readers' sense of satisfaction is reinforced as the two stories merge. Similarly, the reader enjoys a sense of enhanced security through the apparent maintenance of the status quo. Such is the case in some modern-day examples of the genre such as Nadel's *Dance with Death.*

However, the influence of the openendedness characteristic of the holistic paradigm is also evident in the work of some twenty first century authors, such as Jardine, especially in his most recent novels. His *Aftershock* (2007) and *Fatal Last Words* (2009), for example, show a definite move away from any sense of the events culminating in satisfactory closure. This is discussed at a greater length in Chapter 4.

The ritualistic element of myth noted by Coupe (59) is also frequently represented within classic detective fiction. There is a ritualistic quality in the detective's pursuance of the perpetrator of the crime, either physically or mentally, for example, in the regularity and implied repeatability of Holmes's 'method of deduction'. There is also a ritualistic element in that, during an era when execution was the penalty for murder, the criminal as well as the victim dies. The repeated classic detective fiction formula, the enacting of the discovery of a crime and the progress of the detective towards its solution, might also be seen as ritualistic. Ritual and belief systems can also form a distinct element of the plot of classic detective fiction. For example, the plot of Nadel's *Deadly Web* (2005) is dependent on the ancient belief system of Kabbalah. This is discussed at greater length in Chapter 5.

It is arguably in the hero myth that the strongest link between myth and detective fiction is found. The hero myth concerns essentially the battle between the good hero and an evil adversary, who is often, as in the myths of Theseus and the Minotaur and George and the Dragon, depicted as monstrous (Coupe 185). In both these myths evil is incarnated in animal form. The links between evil and monstrous animal has associations with Darwinian evolutionary theory. This will be discussed at greater length in relation to the Darwinian imagery of the Holmes stories.

Sayers sees the detective as derived from the mythic hero figure. For her, the detective is 'the latest of popular heroes [whose] right place [is] as protector of the weak, in this role he is 'the true successor of Roland and Lancelot' (56). The detective is not the administrator of justice, neither is it usual for him to decide the punishment. Although in some cases the criminal dies by his own hand, such as in Sayers's *Whose Body?* in most classic detective fiction the story ends with the unmasking of the criminal, stopping short of the case actually coming to court or the administration of any penalty.

The detective of classic detective fiction is simply the agency through which the perpetrator is caught, enabling justice to take its course.

The Gothic and Detective Fiction

Fred Botting, in his authoritative history of Gothic fiction *Gothic* (1996), notes the link between the Gothic and Romanticism, commenting on the 'Gothic strain' which appears as 'a darker current within the Romantic imagination's visions of unity and transcendence' (98). This Gothic element within Romanticism gave rise to the appearance of dark heroes who were 'wanderers, outcasts and rebels condemned to roam the borders of social worlds, bearers of a dark truth or horrible knowledge' (98). Botting notes how the Byronic hero in particular 'possesses the energy of a Gothic villain' (98). In his excess of mystical powers, anti-rational (and anti-Newtonian) feeling, emotion and imagination the overweening hero of the hero myth becomes the Romantic villain.

Wheeler has noted how Romanticism challenges the Newtonian paradigm especially in that human societies cannot be understood by reduction to their parts and that 'real knowledge does not consist simply in objective, abstract, propositional knowledge, but is also […] deeply experiental' (2006:43). Romanticism similarly challenges the Newtonian paradigm in its lack of order, control, restraint and of its privileging of that which it is impossible to represent directly, such as extreme psychological states. Many contemporary detectives exhibit elements of the dark hero of the Gothic novel, for example Henning Mankell's Inspector Kurt Wallander. Wallander was nearly killed as a young police officer, is separated from his wife and has a daughter who barely survived a suicide attempt. He lives with the guilt of having killed a man. He is physically unfit and suffers from diabetes.

Horace Walpole's (1717 - 1797) *The Castle of Otranto: A Gothic Story* (1764) is generally considered to be the first real Gothic novel (Priestman 15). This novel contains all the elements which came to define the form: not only statues that come to life, giants, vaults, ghostly appearances, all within a 'medieval' setting, but also visions, heightened emotions, passion, fear and terror. Maggie Kilgour, in *The Rise of the Gothic Novel* (1995), regards the detective novel, along with the horror movie, as descended from the Gothic form (3). Knight (18-21), Susan Rowland (Chapter 6) and Lee Horsley

(3-4), among others, similarly note the close relationship between the Gothic form and detective fiction. The Gothic form had its own literary precursors: English Medieval poetry; ballads and the major work of Spenser; Milton and Elizabethan and Jacobean tragedy, especially Shakespeare; Renaissance melancholy, graveyard poets, Ossian, the sublime, sentimental novelists and German traditions (Kilgour 3).

Many of the features of the Gothic form noted by Kilgour interestingly present it as working against the precepts of the Newtonian paradigm discussed in the previous chapter. For example, she highlights the conflict between opposites and contradictions which cannot be resolved (9). Such conflicts illustrate the dangers of the Newtonian paradigm's favouring of division and separation, and as such weaken the influence of the Newtonian paradigm. Within detective fiction such irresolvable conflicts may provide the motive for murder. This is exemplified, for example, by Mrs. Aksu's slighting of Ali Paksoy in their youth in Nadel's *Pretty Dead Things* (2007). Kilgour also emphasizes the importance of past events (30) and regression and arrested development (34) to the Gothic form. These too are contrary to the precepts of the Newtonian paradigm which favours uniform forward motion. Examples of atavism abound in the Holmes stories, accounting, for example, for Moran's criminal behavior in 'The Adventure of the Empty House' (1903) (Doyle 494).

Kilgour also cites resistance to progress as characteristic of the Gothic form, which again defies Newtonian expectations of continuous forward movement (37). Within contemporary detective fiction this resistance may take the form of opposition to personal or historical progress. It may also be apparent in a story's employment of numerous twists to postpone resolution and closure. Such resistance to progress is a frequent theme in the work of Nadel especially in the characters' attitudes to old age and will be discussed further in Chapter 5. This is taken to the extreme in *Petrified,* (2004) where the children are killed and chemically preserved to halt physical decay of their bodies, and in *The Chemical Prison* (2000) where Muhummad Ersoy murders his lover, Avram Avedykian (who is, ironically, a doctor whose work is therefore dedicated to preserving life) because '[h]e would have hated to grow old and ugly' (342).

Scaggs regards the Gothic novel as similarly 'characterised by the disruptive return of the past into the present, particularly in the form of hidden family secrets' (5). This is closely linked with the 'temporal experimentation' which McEvoy gives as a feature of

the Gothic (22). A good example from Hill's work occurs within the plot of *Underworld* (1988) where Colin Farr is haunted by the possibility that his now-dead father may have been responsible for the death of Tracey Pedley many years previously. Like the Gothic restless spirit, Farr cannot rest until the truth is known.

David Punter's book *The Literature of Terror: The Gothic Tradition* (1996), traces the history of the Gothic form in literature. Listing what he regards as the main characteristics of Gothic literature, Punter identifies the emphasis on portraying the terrifying; the prominent use of the supernatural; the highly stereotyped characters; the use of a particular style of language to heighten literary suspense; and the use of archaic settings (1). Further, Punter sees 'the supernatural itself becoming a symbol of our past rising against us, whether it be the psychological past or the historical past' (47). Psychic experience and emotions such as terror fall outside the realm of the Newtonian paradigm as they do not obey the Newtonian laws of science and do not respond to scientific enquiry.

For Botting, the Gothic simply 'signifies a writing of excess' (1), excess which 'emanated from within, from hidden, pathological motivations that (Newtonian) rationality was powerless to control' (12). Arguably, pathological motivations and states of mind which are uncontrolled by rationality are a defining feature of the fictional criminal. For the fictional detective the motivation of the criminal often provides the key to his or her identity. For example, in Nadel's *Pretty Dead Things*, İkmen, knowing the secret to Mrs Aksu's disappearance lies in her past, discovers her abductor by examining the motives of those who know her. The role of the detective in the revealing of the hidden is examined in more detail in Chapter 3.

Similarly anti- Newtonian, the fear of being physically chased, captured, caught, and abused was prominent in eighteenth century Gothic works. This fear was extended in nineteenth century examples of the genre to incorporate the fear of mental persecution and torture not necessarily as a result of physical pain. This can be seen especially in the works of William Godwin (1756-1836) (especially *Caleb Williams* 1794), the Irish writer C.R. Maturin (1780-1824) and the Scot James Hogg (1770-1835). Examples of the fear of the chase are still evident in twentieth century detective fiction, such as in Creasey's *Inspector West Alone* where the criminals try to persuade West to renounce

his former life and personality to protect his family (discussed at greater length later in the chapter).

Kilgour, however, identifies deeper elements of the Gothic, many of which exert important influences within classic detective fiction today. These include, firstly, the examination of the 'fragmentary nature of the personality' (5) true of detectives such as Holmes. At times when he had no cases to solve, Holmes became morose, sleeping much of the time and injecting himself with cocaine. At other times he showed 'the fierce energy of his own keen nature' (Doyle 161). Similarly, Dalziel and Chung in Hill's *Bones and Silence* (1990) both display elements of multiple personalities as discussed in detail in Chapter 3. In more extreme cases the different sides of characters' personalities can become separate beings, as exemplified by Robert Louis Stevenson's (1850 – 1894) *The Strange Case of Dr Jekyll and Mr. Hyde* (1886).

The Gothic liking for dark, forbidding castles and buildings also persists, if in a transmuted form, in classic detective fiction. For example, Watson describes his first view of Baskerville Hall in truly Gothic terms:

> The whole front was draped in ivy […] which formed a dark veil. From this central block rose the twin towers, ancient, crenellated, and pierced with many loopholes. To right and left of the turrets were more modern wings of black granite. A dull light shone through heavy mullioned windows, and from the high chimneys which rose from the steep, high-angled roof there sprang a single column of black smoke. (Doyle 702)

Such archaic settings might include old buildings, university colleges, churches or convents, for example, in P.D. James's *The Black Tower* (1975), *An Unsuitable Job for a Woman* (1972) and *Death in Holy Orders* (2001). These ancient settings cast their shadow over the present and the future. They can be symbolic of the past rising up against us, noted earlier by Punter. According to Kilgour, the figure of the castle can represent both patriarchal power and the maternal body (120). The castle is often a place of confinement, for example in Shakespeare's *Hamlet* (1599-1601), Horace Walpole's *The Mysteries of Udolpho* (1794) and Conan Doyle's *The Hound of the Baskervilles* (1902).

Another element of the Gothic noted by Catherine Spooner and Emma McEvoy is its portrayal of 'the cross-contamination of reality and fantasy' (1). This interaction of the

real and the fantastic creates a nightmare world noted by Markman Ellis (5-8) which still has its place in today's detective fiction. For example, in Hill's *On Beulah Height* (1998) Rosie Pascoe finds herself in a nightmare world when in a coma with meningitis. She also confuses a local folk-story 'Nina and the Nix' with reality, identifying herself with Nina. The influence of Gothic-inspired altered psychological states on the Dalziel and Pascoe novels is discussed in more detail in the Chapter 3.

The Gothic novel might be considered, then, as basically anti-Newtonian in its denial of the concept of forward uniform motion through its emphasis on the importance of the past, and the return of the past to the present. In the importance the Gothic form places on the supernatural, on mood and heightened psychological states it is similarly attributing significance to concepts which lie outside the realm of the mathematisised mechanistic worldview presented by the Newtonian paradigm. Botting describes how the Gothic form gives a renewed voice to much which the Newtonian paradigm suppressed (23).

At a time when the Age of Enlightenment regarded reason and verifiable science as providing the only true path to progress, Ellis, in his *The History of Gothic Fiction* (2000) points out how:

> [g]othic fiction, in its formal structures, mode of discourse and its narrative patterns, hosts a contest between different versions of history. On the one hand […] Gothic fiction offers a critique of the enlightenment construction of history. [...] On the other hand, the novelising strategies of Gothic fiction, […] propose a skepticism not only towards supernatural experience and superstitious belief but towards all naïve forms of credulity. (14)

It is arguable that as the Gothic novel provided a critique of the Enlightenment frame of mind, so today's detective fiction might similarly provide a critique of the dominant Newtonian paradigm. Not only does detective fiction point out the weaknesses of the Newtonian paradigm, it simultaneously suggests that the inclusion of elements of other world views within present-day thinking might be beneficial.

The Victorian Frame of Mind – Historical, Political and Social Considerations

Scientific Paradigms in the Victorian Period

The Age of Enlightenment brought to the late eighteenth century and early nineteenth century both a rejection of the supernatural and magic and a fascination with the discoveries and promises of Newtonian science. According to Ellis, 'the scientific enlightenment reflected a profound cultural transformation in its belief in the power of human enquiry to solve the problems of existence' (121). The repeatability of scientific experiments meant that they could be reproduced before the fascinated general public time and again. The results were not only published in scientific journals but in general magazines and literary reviews (Ellis 123). Science became the province of the populace through open demonstration and so its links with alchemy and magic were severed. Interestingly, Mary Shelley attended the Royal Institution lectures of Humphrey Davy as a child (Ellis 122).

As discussed in Chapter 1, Darwin's *The Origin of Species,* and *The Descent of Man* extended this demystification of the universe to include the origins of man himself. In recent years, scholars have started to analyse the possible connections between the work of Darwin and literature, Beer's *Darwin's Plots* being a notable example, assessing the acceptance or resistance to evolutionary theory by novelists such as Charles Kingsley (1819 – 1875), George Eliot (1819 – 1880) and Thomas Hardy (1840 – 1928). For Beer, 'the process of 'naturalisation' of Darwin's theories has blinded us to their 'imaginative power' to which, she argues, we need to become reawakened (2). This acknowledgement of the imaginative power inherent within scientific theory has links with Bailey's discussion of the relationship between science and the imagination in his *The Enchantments of Technology* (2005). Bailey's work, together with a discussion of the Aristotelian recognition of the relationship between *techne* (art) and *episteme* (scientific knowledge) is discussed in greater detail in Chapter 5.

The Origin of Species was extremely popular, running to six editions in Darwin's lifetime (*Origin* 34). Written before the development of a specifically scientific vocabulary, Darwin's work was distinctly readable, not only by men of science but also by the general public. Works of fiction, such as Doyle's Holmes stories and those of science, such as Darwin's *The Origin of Species* and *The Descent of Man* frequently shared, in the late Victorian period, a common prose style and language which also

served to blur the boundaries between fact and fiction (Beer 4). Scientists often cited the works of poets and philosophers in their scientific papers (Beer 5). Darwin himself quoted Alfred, Lord Tennyson's (1809 – 1892) *Idylls of the King* (1856-74), in *The Descent of Man* (101). The Holmes stories were originally published in *Strand* Magazine alongside articles about actual police cases, developments in criminology, news stories, political commentary and reports of scientific inventions (Thomas 75). This made the separation of fact from fiction particularly challenging for the readership, while at the same time allowing for the easy interchange of ideas between different types of writing.

Some vestiges of the Aristotelian paradigm remained in the ideology of the late Victorian period and beyond. However, while the Aristotelian philosophy implied that every body had its own correct place or level, partly as a result of the successive Reform Bills of 1832, 1867 and 1884, society was becoming far more democratic (Houghton 4). The development of commerce increased man's opportunity for self-improvement. The Victorians therefore upheld in some small degree, the Aristotelian notion that the goal of man's existence was to attain perfection, through their striving to better themselves and their position in life.

The Darwinian position that while the various races of man formed a coherent chain of existence, the white, Christian, western races were surely at the top, thus acted as justification for the spread of Imperialism, clothing exploitation in the garb of Christian charity and respectability (Eldridge 140). This assumption, when combined with the theory of the Italian criminologist Cesare Lombroso (1836-1909) that the lower races were inherently criminal, seemed to provide 'scientific' justification for Imperialism. Lombroso's work, published in *Criminal Man* in 1876, has been discussed in Chapter 1

The Origin of Species and *The Descent of Man* offered a theory of the creation which directly challenged the Biblical account offered in the Book of Genesis, shaking the religious beliefs of the middle-classes to the core. This questioning of the veracity of the Bible was unprecedented in modern times. At the same time the veracity of the Bible was also under attack from new German criticism which showed the Bible to be unreliable as historical fact (Bronowski 164-9). Lawrence Frank, in his *Victorian Detective Fiction and the Nature of Evidence: The Scientific Investigations of Poe,*

Dickens and Conan Doyle (2003) notes that the difficulty of reconciling Darwinian evolutionary theory with the existence of God which struck at the heart of the Victorian people, still exists today (30). Frank sees the 'seemingly motiveless frenzy' of the ape in 'the Murders in the Rue Morgue' as 'introduc[ing] the terror of a history secularized and devoid of design' (43). He regards the attempt by the detective and the detecting process to establish, or perhaps re-establish the (Newtonian) link between cause and effect, as a way of restoring stability (47). According to Symons, classic detective fiction offered its readership 'a reassuring world in which those who tried to disturb the established order were always discovered and punished' at this time of perceived threat to their continued elevated position within society (Symons 21).

Walter E. Houghton notes in *The Victorian Frame of Mind* (1957) that '[w]hat made religious doubt particularly painful to the Victorians was the direction toward which it pointed.' (68). Echoing Frank above, Houghton notes how religion was replaced by 'a scientific picture of a vast mechanism of cause and effect' (68). Rather than agreeing with Frank in seeing this as providing a stabilising effect, Houghton reports that it filled most Victorians with 'horrified shock' (68) which undermined the basic feeling of personal security previously enjoyed by the Victorian middle class. The fear of crime increased.

Colin Wilson's *Written in Blood: A History of Forensic Detection* (1989) offers a history of the development of forensic science by reference to landmark cases. Wilson's detailed and extensive research covers the period from the trial in 1751 of Mary Blandy for the murder by poisoning of her father up to the case of the Yorkshire Ripper, Peter Sutcliffe in the late 1970s. Wilson points out that '[i]n 1887, the year of *A Study in Scarlet* scientific crime detection was still virtually non-existent' (25). Pre-nineteenth century crime solving was a very negative affair, relying on torture and the (sometimes malicious) evidence of witnesses. By the nineteenth century detection had a far more positive feel. The detective would pit his intelligence and skill against that of his evil adversary. The relationship between Holmes and Moriarty is a good example of such antagonism.

By the middle of the nineteenth century, the instigation of a reliable police force beginning to have its effect and London, certainly, was starting to become a much safer

place. However, during the second half of the nineteenth century, the middle-classes were becoming increasingly uneasy regarding threats to the maintenance of the hierarchical society of which they were the main beneficiaries. Martin Priestman in his 2003 *Cambridge Companion to Crime Fiction* identifies the emergence of an actual police force as being essential to the success of the classic detective fiction form (3). Sayers notes that in early examples of crime literature the sympathy of the authors was with the criminal. Both Sayers (55) and Ian Ousby (80) consider that the detective story proper could not flourish until the sympathy of the readers lay with the police force rather than with the criminal.

In 1829, due mainly to the efforts of Sir Robert Peel, a bill was passed by Parliament to establish the first British police force. The general public was still suspicious that the role of the police was to catch offenders and incarcerate them in prison irrespective of the evidence (Wilson 41). It was not until 1842, that a formal plain-clothes detective branch was established. Initially, it was only comprised of two inspectors and six sergeants against a uniformed branch of 4,000 officers (Knight 30). The first CID branch was created at Scotland Yard in1878, headed by Superintendant Adolphus Williamson (Wilson 47).

Early Examples of the Detective Fiction Genre

The Sherlock Holmes Stories of Sir Arthur Conan Doyle (1887 – 1927)

The Sherlock Holmes stories of Arthur Conan Doyle form part of this study because they are arguably fundamental to the establishment of detective fiction as an independent literary genre. Sayers recognises the importance of the Sherlock Holmes stories in unifying the previously diverse elements into a coherent form stating that with Holmes 'the detective-story became swept away on a single current of development' (Winks 72). Priestman notes how it was not until the appearance of Sherlock Holmes that detective fiction acquired the 'repeatable genre format' which allowed specific works to be recognisable as belonging to the detective fiction genre (4).

Symons simply calls Sherlock Holmes 'the greatest of Great Detectives' (66). For Knight, Holmes is supreme:

> [He is] unquestionably an apotheosis, a conveying of quasi-divine status on the figure that had slowly emerged through the nineteenth century: a detective

> who is highly intelligent, essentially moral, somewhat elitist, all-knowing, disciplinary in knowledge and skills, energetic, eccentric yet also in touch with ordinary people who populate the stories. (55)

This 'quasi-divine' status of the fictional detective links him with the hero figure encountered in myth and the heroic romance. Contemporary fictional detectives can similarly display god-like characteristics. There are many references to Daziel's god-like status in Hill's *Bones and Silence*, which are both enhanced by and partly responsible for Chung choosing him to play God in the Mystery Play. The fictional detective is quasi-divine in that his powers of perception and of reasoning often confound those around him to the point of rendering him almost superhuman.

This empathy between the fictional detective and the victim, as noted by Rowland (24), is a feature early tales of detection share with many contemporary examples of the genre. For example, the sympathy Holmes feels for vulnerable women, such as Violet Hunter in 'The Adventure of the Copper Beeches' (1892) and Mrs. Ronder in 'The Adventure of the Veiled Lodger' (1927) is mirrored by Dalziel's concern for the wellbeing of the unpopular Kay Kafka in Hill's *Good Morning, Midnight.* Knight sees Holmes's empathy with the common man as partly responsible for his success. The plight of the victims in the Holmes stories might have represented the uncertainties and insecurities of the readership. In Holmes they had a champion who could solve their problems in a simple, scientific and transparent manner (Knight 57).

The first time we meet Holmes, in *A Study in Scarlet* (1887) he is beating a dead body to see if bruising can occur after death (17). Holmes, though not alone in his overtly scientific approach is, arguably, the epitome of the scientific detective in that he is the first popular fictional detective to actually carry out his own forensic investigations. Other great scientific detectives include R. Austin Freeman's Dr Thorndyke, a medical doctor, whom Horsley calls 'the archetypal scientific investigator [… who] amplified the rational, scientific side of the Holmes investigative technique' (35).

Holmes responds to the popular fascination with science by actively employing the new forensic techniques. For example, he employs fingerprinting in 'The Adventure of the Norwood Builder' (1903), blood analysis in *A Study in Scarlet* and photography in 'The Adventure of the Lion's Mane' (1926). However, Holmes's success results less from the overt usage of forensic techniques and more from his scientific way of thinking, his

'science of deduction.' The importance to Holmes of his science of deduction is illustrated by Chapter 1 of both *A Study in Scarlet* and *The Sign of Four* bearing that title. He thinks from the perspective of the Baconian method within the Newtonian paradigm (see earlier in the chapter).

Nigel Cooper (2002) notes that the French forensic scientist, Edmund Locard instructed his pupils to read *A Study in Scarlet* and *The Sign of Four* to better understand the practice of forensic science. This is an interesting example of the interaction of fact and fiction mentioned earlier. Holmes may have championed the usefulness, effectiveness and reliability of the new forensic science to his readership more in theory than in practice, but it nevertheless presented the achievements and potential of science to the public in a very positive light. It might be argued that in so doing classic detective fiction accelerated the acceptance of forensic techniques such as fingerprinting by the general public, and by juries in particular.

Sir Francis Galton, a cousin of Darwin, published his book *Classification and Uses of Fingerprints* in 1890, the first book on fingerprinting and its potential use in the solving of crime (Wilson 173). It is interesting to note, however, that 'The Adventure of the Norwood Builder' where 'the well-marked print of a thumb' (Doyle 507) helps Holmes to identify the culprit was published two years before the real-life case of the murder of shopkeepers Mr. and Mrs. Farrow at Deptford, which was the first case in England to be solved using fingerprints (Wilson 113).

The Sign of Four (1890)

The Sign of Four exemplifies the Holmes adventures in the way it offers a clear demonstration of the engagement of classic detective fiction with contemporary social and political concerns, whilst incorporating elements of its literary history. *The Sign of Four* is particularly concerned with the relationship between the science of Darwinism and Imperialism. *The Sign of Four* also reflected (and possibly encouraged) the growing interest of the late Victorians in the sciences, including the new forensic science. Similarly, the Holmes stories demonstrate the public's growing confidence in the new professional police force. The officers of the Holmes stories are not corrupt, even if they lack some of Holmes's skill and mental ability. Scaggs notes that '[t]he ideology [of the

Holmes stories] is clear. Crime will always be punished either by the law or by divine providence' (25).

Thomas considers *The Sign of Four* as notable for its employment of the Newtonian paradigm's forensic techniques to detract from the 'corrupting desire for imperial plunder in the context of the Indian Mutiny of 1857' (231). Thomas notes how 'Holmes's rigorously "scientific" approach to detection would inextricably link issues of criminal and national identity' (220). Thomas interestingly points out how forensic science links identification of the murderer Tonga from his footprint with the first deployment of fingerprint identification by its pioneers William Herschel and Edward Henry to control Sepoy troops after the Indian Mutiny of 1857 (232).

Set against the backdrop of colonial India towards the end of the nineteenth century, *The Sign of Four* starts as it ends, with Holmes preparing to inject himself with cocaine to get him through 'the dull routine of existence' (90). Watson warns Holmes of the 'permanent weakness' their use may inflict on his brain and reminds him of the 'black reaction' which he has to their use (15).

The story opens with Miss Mary Morstan arriving to seek Holmes's advice. Her father, Captain Morstan disappeared ten years previously after his return to England from India. For the last six years Miss Morstan has received annually a valuable pearl. After receiving an anonymous letter, Miss Morstan, Holmes and Watson are taken to the home of Thaddeus Sholto, the son of her father's best friend, Major Sholto, now also dead. Thaddeaus tells of the Agra treasure, half of which 'belonged rightfully to Miss Morstan' (125), treasure which Major Sholto and Captain Morstan had spirited out of India, (some of Thomas's 'imperial plunder') promising that she will be united with her 'inheritance' and her father's murder will be avenged.

At the house of Thaddeus's twin Bartholomew who has the treasure in his keeping, Holmes, Watson and Miss Moran discover Bartholomew dead, killed with a poisoned dart (possibly another reference to the dangers of Imperialism), in his room which 'appeared to have been fitted up as a chemical laboratory'(109). The treasure is missing. Bartholomew's laboratory is a further example of the interest of the age in science, especially this scientific experimentation characteristic of the Newtonian paradigm. It also indicates that dabbling with chemicals, a past time in which Holmes himself

indulges, is perfectly acceptable and therefore opens up the world of science to the amateur.

Holmes's method of detection is basically to 'examine the data, as an expert, and pronounce a specialist's opinion' (90). Although Holmes calls this method 'deduction' Horsley points out that it is both deduction and induction, as [quoting Holmes]'it must add 'the power of observation to that of deduction'' (24). Holmes states three qualities essential to the successful detective: good powers of observation, deduction and knowledge (90). Holmes's method, while being basically Newtonian, incorporates Aristotelian elements, especially in the insistence on the importance of knowledge (see Chapter 1). It is this knowledge which Holmes possesses and Mr Athelney Jones of the official police force lacks. As a result of his extensive knowledge of poisons (21), Holmes knows that Bartholomew has met his death through '"some powerful vegetable alkaloid […] some strychnine-like substance which would produce tetanus"' (113).

At the scene of Bartholomew's murder, Holmes characteristically examines the room with great care. On the windowsill he finds 'the boot-mark [of] a heavy boot with a broad heel, and beside it […] the mark of a timber toe' (110). In the loft he notes that 'the floor was covered thickly with the prints of a naked foot – clear, well-defined, perfectly formed but scarce half the size of those of an ordinary man' (112). His examination method of the rest of the room reveals him as a careful and assiduous collector of Newtonian facts, as '[h]e whipped out his lens and a tape measure and hurried about the room on his knees, measuring, comparing, examining, with his long, thin nose only a few inches from the planks' (112). The importance of exact measurement is similarly Newtonian.

Jones arrives at the murder scene. Whilst Jones secretly respects Holmes, who has been of use to him in the past, Jones berates him as 'the theorist'. The different ways of working of the two men demonstrate the superiority of Holmes's Newtonian science and Baconian method over Jones's use of 'common sense' (113). Jones does not see that Holmes's theories are based on close observation and collection of facts and so erroneously criticises Holmes for reaching conclusions whilst not 'quite in possession of the facts' (114). It is Jones's conclusions, arrived at with no recourse to solid Newtonian fact, which are shown to be ridiculous when he proceeds to arrest not only Thaddeus Sholto but the gatekeeper, the housekeeper and the Indian servant (117). Lying within

the Newtonian paradigm, Holmes's method based on strong scientific principles is shown to produce the correct conclusion.

In the character of Tonga, Doyle combines elements of myth (discussed earlier) in which the villain is portrayed as monstrous and animal, with Lombroso's concept of the criminality of the 'lower races'(see Chapter 1). Holmes uses the (fictitious) just-published gazetteer to identify the footprint as belonging to an aborigine of the Andaman Islands. However, the article's assertion that Andaman aborigines (as members of a 'lower' race) are truly evil is later proved entirely wrong. Darwinian evolutionary theory might arguably be seen as presenting scientific justification for the subjugation of the 'lower races' by white men, but Doyle's portrayal of the character of Tonga as intrinsically good challenges this. While Darwin refers to aborigines as 'taciturn, even morose' (1871: 216), Tonga demonstrates loyalty and fidelity. Jonathan Small says of Tonga; 'he was staunch and true, was little Tonga. No man ever had a more faithful mate' (155). Doyle might again be seen here as championing the Newtonian assertion that the only route to true knowledge lies through observation of actual fact.

Holmes and Watson trace Small, Tonga and the treasure to a boat, the *Aurora*, on the Thames. Holmes explains the conclusions he reaches in respect of the pursuit of the *Aurora* in the language of mathematics, suggesting the reliance of his 'science of deduction' on Newtonian mathematisation of science. And yet, for Holmes, detection does not seem to be the exact science that he stated it should be on the second page of the story. Holmes prediction of Small's actions on the *Aurora* is determined by 'the balance of probability'(135). In its employment of probability Holmes is looking forward to the holistic paradigm. Holmes also 'put [himself] in the place of Small and looked at it as a man of his capacity would' (136). A sound knowledge of human nature is also required. This might be seen as a less than scientific approach, but Frank notes that Dupin's modus operandi assumes 'that [scientific] law governs not only all natural phenomena, but also the workings of the human mind' (Frank 32). Holmes is, perhaps, foreshadowing the development of the science of psychology.

Holmes also employs Newtonian mathematical concepts, but again mathematical concepts of probability, in ascertaining the direction of travel of the *Aurora*, concluding that '[i]t is certainly ten to one that they go downstream' (137). Holmes believes that;

> [w]hile the individual man is an insoluble puzzle, in the aggregate he becomes a mathematical certainty. You can, for example, never foretell what any one man will do, but you can say with precision what an average number will be up to. Individuals vary, but percentages remain constant. So says the statistician. (137)

The combination of large-scale order with small-scale disorder, of macro-predictability with micro-unpredictability is an important feature of the holistic paradigm's concept of chaos (Smith 13). However, the idea that the behavior of the whole can be ascertained from a study of its parts is purely Newtonian. Holmes's combination of elements of both the Newtonian and holistic paradigms in his use of mathematics illustrates how parts of a dying paradigm still function within the new worldview.

Before Small and Tonga can be apprehended, Small kills Tonga and tips the treasure overboard. Small is caught and taken into custody. The story ends with Miss Morstan favouring Aristotelian stasis over motion, finding her rightful place, settling by Watson's side as his wife. This is only possible because the treasure is lost. Her inheritance of the Agra treasure would have made marriage to Watson impossible as it would have raised her well above Watson's class. In true Aristotelian fashion she maintains her original class. Also Aristotelian in origin is Holmes's highly developed use of logic in arriving at his conclusions.

Where the hero of myth and romance employs the supernatural, Holmes uses Newtonian science. Rather than displaying superhuman degrees of human qualities such as bravery and courage, Holmes demonstrates his almost superhuman mental capacity and powers of reason, using them to protect the weak and solve the crime. Rarely at risk physically, it is his brain with which he wages his war against evil, using the new panacea of Newtonian scientific method, techniques and frame of mind as a weapon. Holmes's working method and mindset are firmly routed in the Baconian scientific method of the Newtonian paradigm whilst still containing notable elements of the Aristotelian worldview, for example, in the importance Holmes attaches to knowledge.

The Golden Age Proper

What actually defines the so called 'Golden Age' of detective fiction is a matter of some contention. For Gill Plain in her *Twentieth Century Crime Fiction*, the Golden Age of

detective fiction is generally held to have dominated the second quarter of the twentieth century (Plain 4) although commentators differ as to the exact period of its influence (Knight 85). Symons, for example, classes the Holmes Era as the First Golden Age, with the 1920s and1930s as the Second Golden Age. Knight notes that detective stories of the period have 'a coherence and a self-consciousness' which makes it easier to identify them as a group than it is with subsequent examples of the genre (Knight 87).

Horsley's, *Twentieth Century Crime Fiction* (2005), traces the development of the genre through the 'Golden Age' of detective fiction to the work of James and Ruth Rendell written prior to 1970. She considers the term Golden Age as applicable mainly to the detective fiction of the inter-war years, tracing its development from the 1920s onwards. Starting with the work of Conan Doyle and his contemporaries, Horsley highlights the reassuring quality of the genre, its invitation to the reader to join in with solving the crime and its game-like qualities as some of the reasons for its continuing popularity, noting its similarity to the cryptic crossword (14). She points out the essentially conservative nature of the genre whilst acknowledging certain qualifications. Rowland (24) similarly highlights the genre's 'playfulness', a playfulness which, through playing with the construction of the detective as masculine, reveals the value of his innate femininity.

In his Preface to the anthology *Best Detective Stories* (1928) Monsignor Ronald Knox (1888-1957) wrote his Decalogue of ten rules to which he felt classic detective fiction should adhere. Almost as if taking up a challenge, and again in the spirit of playfulness, many authors took a delight in breaking them. A notable case of 'breaking the rules' is Christie's *The Murder of Roger Ackroyd* (1926) where the narrator himself commits the murder.

Arguably, the Golden Age text is one of stability and security, which, although threatened for a while, the reader knows will be restored by the detective finally solving the crime. This sense of stability and security is enhanced by the complete sense of closure, allied to the Newtonian paradigm, with which such works reassure the reader. Typically, at the end of the story the reader will know not only who committed the crime and their motive but will also be privy to the exact process through which the detective solved the crime. More than this, the classic detective fiction genre returns

power and control to the reader by allowing him to believe that he can solve the crime (that is, maintain the status quo) ahead of the detective (Knight 88). Society and all the institutions which maintain it are unquestionably good and wholesome: the crime of which the villain is really guilty is of trying to unbalance this stability. Ultimately the villain never succeeds. The status quo is maintained with the elimination of the 'other', the villain, from society.

In recent years, however, this description of the Golden Age period as conservative and reassuring has been brought increasingly into question as studies emerge which emphasis different elements of the genre. For example, although the expressed aim of Plain's book is to offer 'a re-reading of twentieth-century crime fiction through the critical lense [sic.] of gender [… this] has led to unexpected repercussions [… such as] the uncovering of evidence that if not actually previously overlooked, could certainly be said to have been misinterpreted' (5). Plain investigates the changing role of the body in detective fiction, for example, discussing the 'complexly coded' bodies of Christie's fiction (43). She argues that 'Agatha Christie's texts are riven with unstable and insufficiently examined bodies, both dead and alive' (29) and offers a reassessment of their symbolism.

Plain suggests that the bodies in Christie's fiction might represent the unknown bodies of war. Further, Plain suggests that the detailed investigation of death and the body in a detective novel might act as a counter balance to the obliteration of the individual corpse in war (34). This might be in part a reaction to the obliteration of individuality amongst the mass killings of the First World War. For Plain, the 'meticulous investigation of a single death' acts in some degree as a corrective (34).

Unlike the anonymity of many of those lost as a result of war, within classic detective fiction it is possible to identify, mourn and find the murderer of every single body. Sayers *Whose Body?* offers a good illustration of how bodies which at first defy identification, or whose identity might be confused with that of another will eventually be correctly named, offering closure to the relatives and the reader. This is similarly the case in both Hill's *Good Morning, Midnight* and Nadel's *Deadly Web* which are set against a background of the Iraq War. Interestingly, Plain's identification of the importance of the victim's body is not only a feature of Golden Age fiction, but is also a feature of some contemporary detective fiction, such as Nadel's *Petrified.* Here, interest

in the victims' bodies is more equally balanced with interest in the detecting process than, for example, in the majority of Holmes adventures where the main interest lies in demonstrating Holmes's expertise. The interest in the bodies of the victims links present-day detective fiction with its Golden Age counterpart demonstrating in this aspect, continuity of the form.

For Rowland, in her 2001 publication *From Agatha Christie to Ruth Rendell: British Woman Writers in Detective and Crime Fiction*, the Golden Age began in 1920 with the publication of Agatha Christie's *The Mysterious Affair at Styles* (15). Rowland opens her book by stating its subject as pleasure and the way it is tied up with 'an interrelated set of concerns' (Rowland viii). Such interrelation is a feature of the holistic paradigm. It might be that the recognition of previously neglected strata within Golden Age detective fiction results from the coming of a more holistic age which values different view-points.

Rowland's book concentrates on the work of six writers: Agatha Christie (1890 – 1976), Margery Allingham (1904-1966), Dorothy L Sayers (1893-1957), Ngaio Marsh (1895-1982), P.D.James and Ruth Rendell/ Barbara Vine. It is generally considered that the Golden Age came to be dominated by the first four of these (Rowland 15). Rowland, like Plain, considers the work of these six authors from previously neglected perspectives such as their attitude to deviance, the role of the unconscious, the readers' sense of identity, the changing roles of femininity and the role of sexuality, and the pleasure the readers gain from the 'genre's duel with death' (Rowland ix). The reason that these novels are read and reread, Rowland suggests, is partly that the reading public is more concerned with the process of detection than 'whodunit'. The privileging of 'process' is a feature of the holistic paradigm. The concept of a lack of satisfying closure in detective fiction which arises from a privileging of process over stasis noted by Rowland will be developed in later chapters of this thesis.

The fact that the four main Golden Age authors were female is in no small part responsible for a shift of viewpoint in the genre during the inter-war years. The previous age saw the male-authored detective novel as privileging the Newtonian qualities of 'reason, intelligence, order and rationality', the very qualities valued by the male culture which 'has exclusively produced and administered the law as well as its attendant apparatus of police, lawyers and courts' (Rowland 16).

While Holmes as a heroic masculine figure eschews femininity, Golden Age female writers almost celebrate the feminine within the figure of the detective, demonstrating the importance of the anti-heroic, feminine element to the success of detectives such as Poirot and Lord Peter Wimsey. While Holmes's weaknesses such as his addiction to cocaine only become evident when he is not employed in solving a case, that is, they are external to the detecting process, Wimsey's recurring shell-shock frequently strikes within the working out of the case (such as in *Whose Body?*). The feminized detective is not restricted to the Golden Age. Nadel's Inspector İkmen displays a weakened masculinity in being dominated by both his wife and the memory of his psychic mother.

Dorothy L Sayers – *Whose Body?* (1923)

An early example of classic Golden Age detective fiction, *Whose Body?* was Sayers's first novel introducing Lord Peter Wimsey, the aristocratic ex-soldier turned amateur detective who subsequently featured in fourteen volumes of novels and short stories. *Whose Body?* is important to this study because it develops the genre's interest in Newtonian-inspired forensic science already noted in relation to *The Sign of Four* thus demonstrating one area of continuity within the development of the form. Both novels are concerned with the accurate collection and recording of forensic evidence associated with the Newtonian paradigm. A further development in *Whose Body?* is the increased importance of technology, especially photography, to the detecting process. *Whose Body?* also demonstrates the form's increasing concern with identity and the human body itself.

Considering the figure of the detective himself, there are several notable similarities between the character of Holmes and Lord Peter. For example, they both share an interest in the arts. As Holmes plays the violin; Lord Peter plays the piano. They both exhibit some degree of mental instability. Lord Peter has suffered shell-shock resulting in 'emotional frailty' (Plain 13); Holmes needs to take cocaine at times of mental inactivity to dull the pain of existence.

However, there are also important differences, firstly regarding issues of class, an example of Newtonian division. Watson and Holmes are of a similar social class, whereas Lord Peter and Bunter are not. Despite this, the relationship between Lord

Peter and Bunter is a positive one because Bunter knows his place and has contentedly achieved Aristotelian settlement. Lord Peter reminds Bunter that '"I pay you £200 a year to keep your thoughts to yourself"' and asks him if '"in these democratic days, don't you think that's unfair?"', Bunter replies '"No, my lord"' (22). Bunter displays an Aristotelian acceptance of his position in life, in fact, he seems to relish it.

Secondly, Holmes is an enigmatic figure, who seems somewhat removed from the society whose fears his cases articulate and aim to address. He is, perhaps, the personification of the Newtonian discrete particle, separate and alone. Lord Peter, on the other hand, is a far more sociable fellow. Although mostly of his own social class (except for Chief Inspector Parker), he has numerous friends and acquaintances. Lord Peter is operating from within a holistic network of relationships. Holmes seems more distant, more external to the ills of society. Without his deep understanding of and apparent empathy with the circumstances of his clients' existences, Holmes would be unable to deduce so much information from, for example, Henry Baker's hat in 'The Adventures of the Blue Carbuncle' (1892). Yet there seems no point of contact between Holmes's life of relative privilege and the impoverished life of many of his clients. He is the epitome of the Newtonian objective observer. Holmes's cases frequently commence with his being visited by a concerned character or victim seeking his help: the crime presents itself to Holmes. On the other hand, in *Whose Body?* Lord Peter is not a Newtonian objective observer. Rather he is drawn into the case through his mother's acquaintance with Mr Thripps.

Thirdly, whereas Holmes is somewhat driven in his calling as a consulting detective, for Lord Peter detection is little more than an amusing past time. Holmes's energy and the necessity for speed which characterises cases such as 'The Adventure of the Speckled Band' (1892), reflect the demand for continuous forward motion of the Newtonian paradigm. The detecting process for Lord Peter is a far more relaxed affair. Lord Peter has misgivings as to whether he ought to be detecting at all. Lord Peter feels that '" if it comes down to really running down a live person and getting him hanged or even quodded, poor devil there don't seem as if there was any excuse for me butting in, since I don't have to make my living by it"' (124).

The plot of *Whose Body?* initially seems to derive from two very separate mysteries. The first involves the finding of a naked corpse in his bath by Mr. Thripps: the second

the disappearance of the wealthy financier Sir Reuben Levy. Lord Peter is asked by his mother to call at the Thripps's house to offer any assistance he may.

Returning home from Mr Thripps's house, Lord Peter finds that Bunter has triumphed at an auction, purchasing all the books Lord Peter wanted at £60 below Lord Peter's price limit. Discussing how the £60 might be best spent, Bunter tells Lord Peter that '"[t]here's a Double Anastigmat with a set of supplementary lenses […] [i]f it was a case of forgery now – or footprints – I could enlarge them right up on the plate. Or a wide-angled lens would be useful"' (21). Lord Peter sanctions the purchase. Baconian scientific method decrees that data should be recorded as accurately as possible rendering the latest, most advanced equipment invaluable in the fight against crime.

Another difference in the relationship between Lord Peter and Bunter and Holmes and Watson is that Bunter plays a more equal part in the detecting process. Watson is seldom more than a sounding-post for Holmes's ideas and a chronicler of his cases. Perhaps surprisingly, his medical knowledge is rarely used to help solve a case. Bunter's interest in photography, however, is in *Whose Body?* of primary importance in providing accurate forensic evidence. Bunter's expertise is expertise which Lord Peter lacks. Despite their class difference, the interaction of the different skills of Bunter and Lord Peter expresses the holistic paradigm's favouring of integration over the Newtonian paradigm's emphasis on separation and atomization demonstrated by the relationship between Watson and Holmes. However, while Bunter and Lord Peter's sharing of expertise looks towards the holistic paradigm, Lord Peter's method of detection is still highly influenced by the empirical concerns of the dominant Newtonian paradigm.

While Inspector Sugg thinks the body in the bath is that of Sir Reuben: Chief Inspector Parker is equally sure that it is not. The medical evidence suggests that the body had been dead for a day or two, ruling out Mr. Thripps as the murderer as he was away during that period. Questioning the infallibility of the Newtonian world view, Lord Peter points out the unreliability of medical evidence of *rigor mortis* as an indication of the time of death. As its onset is subject to a vast array of factors, the time of death suggested by the degree of *rigor mortis* can only be a matter of opinion and is not scientifically verifiable.

As Lord Peter points out: '"you cannot ask a British jury to convict a man on the authority of a probable opinion"' (29). Lord Peter highlights the close relationship between the legal system, Baconian scientific method and the Newtonian scientific paradigm in his recognition that all three rely on exact, concrete, empirical data. It is interesting to note that this need of a jury for exact scientific evidence is still causing difficulties for Dalziel in Hill's *A Killing Kindness* written in 1980 and *Bones and Silence* (1990). Lord Peter points out that the corpse is that of a poor man who has been shaved, groomed and perfumed after death.

After removal of the body, Lord Peter, Parker and Bunter return to the house to take photographs. Whereas Holmes's scientific equipment in *The Sign of Four* comprises little more than a tape-measure and lens, Lord Peter carries with him a much larger assemblage of scientific equipment comprising his 'stick, my torch, the lampblack, the forceps, knife [and] pill-boxes' (39). His stick, which he has had specially made, is calibrated in inches, contains a sword and has a compass in its handle. Science is here becoming a more specialised practice, requiring specialist equipment and a more rigorous methodology as demanded by the Baconian method of the Newtonian paradigm. Holmes's astute powers of observation are no longer enough to elicit a conviction.

Similarly Lord Peter, Parker and Bunter carry out what amounts to a forensic examination of Sir Reuben's bedroom from which he supposedly disappeared. This division of labour is a development over Holmes's scientific detection where he alone was able to carry out an adequate assessment of the scientific evidence. As they examine the evidence the two cases start to merge. This offers an illustration of the holistic paradigm's concept of the world as an interconnected whole. Bunter photographs Sir Reuben's fingerprints from his personal belongings and a footprint: Lord Peter discovers two different coloured hairs in Sir Reuben's hats. The impression left in the bed, measures five feet ten whereas Sir Reuben was six foot two inches tall.

The influence of the Newtonian paradigm, which favoured mathematisation, is apparent here in the importance attached to exact numerical measurement of length. Lord Peter calls Parker '"cautious, ungenerous, deliberate and cold-blooded"' for showing no enthusiasm for the forensic evidence. This is a reversal of the position in *A Study in Scarlet* where it is Holmes who exhibits '"cold-bloodedness"', not the official police

force (Doyle 17). Parker, like Holmes, uses disguises, for example to interview Sir Reuben's neighbours (Sayers 72). Lord Peter elucidates his theory to Parker that it was not Sir Reuben who slept in the bed that night, but an impostor.

Parker and Lord Peter discuss over five pages of the novel the implications of the photographs of the fingerprints taken from Sir Reuben's bedroom. The length of their discussion is an indication of the importance of photography to the investigation. However accurate the photographic evidence may be, Parker and Lord Peter still cannot decide which prints are the same, despite having '"measured and measured every way backwards and forwards till my [Lord Peter's] head's spinning"' (76). The exact measurement of the Newtonian paradigm does not necessarily provide all the answers. Their dilemma demonstrates that exact Newtonian facts are inanimate; they do not draw their own conclusions. Martha A. Turner comments (76) that 'as long as human perception and interpretation remain imperfect – people will […] need to rely on more than observed facts and inductive inference to make sense of their lives'. This undermines the precept of the Newtonian paradigm that the world is totally knowable through observation. The observer can never be completely objective. Exact evidence is important, but it is the interpretations and conclusions drawn from scientifically verifiable facts which lead to the solution of the crime. This point is developed further in Jardine's *Fallen Gods* (2003) when it is shown that the forensic evidence surrounding Ron Neidholm's death is open to two diametrically opposed interpretations.

Assuming Sir Reuben to be dead, Lord Peter arrives at three possibilities for how Sir Reuben might have met this fate, with Possibility 2 divided into three Hypotheses; the first of which is divisible into two further subdivisions. Such multiple divisions illustrate Turner's point that Western society continues to demonstrate a 'belief in, or nostalgia for, underlying [Newtonian] laws or mechanisms to simplify and render intelligible the welter of experience' (41). However, such multiple divisions are here shown as little short of ridiculous, offering more confusion than clarity whilst simultaneously refuting the Newtonian tenet that the nature of the whole can be ascertained through the study of individual parts.

Parker attends the inquest on the body in the bath, which is similarly reported at length (89 – 105), illustrating the form's growing concern (and possibly that of the readership) with the nature of the corpse itself, noted by Plain (29 onwards). Sir Julian Freke, an

eminent neurologist, was the first to medically examine the body of the deceased. Sir Reuben allegedly visited Sir Julian to consult him on a medical matter on the evening of his disappearance.

Earlier in the novel, Lord Peter stated that 'if you ever want to commit a murder, the thing you've got to do is to prevent people from associatin' their ideas' (120). Lord Peter is becoming suspicious of Sir Julian as he is connected with both the body in the bath and Sir Reuben. Interconnectedness is a feature of the holistic paradigm. Lord Peter explains that:

> most people don't associate anythin' – their ideas just roll about like so many dry peas on a tray, making a lot of noise an' goin' nowhere, but once you begin lettin' 'em string their peas into a necklace, it's goin' to be strong enough to hang you, what? (120)

Separate ideas as individual thoughts are of little use. It is only by the dissolution of Newtonian barriers between these ideas that collectively they acquire meaning. When ideas, as Newtonian discrete particles, integrate, the sum of their meaning becomes more than the meaning of the individual ideas in line with the precepts of the holistic paradigm.

Like Aristotle, Sir Julian is an empiricist. He believes that all knowledge comes from personal experience. But he is a 'Freke', that is 'a person who is obsessed with a particular activity or interest' (OED Online – first usage noted as sixteenth century). Most of his human dissections are carried out late at night when he will not be disturbed, at St Luke's Hospital which is linked to his residence by a private door. The image of a man working on a dead body alone late at night in order to gain knowledge has Gothic overtones, recalling, perhaps, Victor Frankenstein working on building the monster in Mary Shelley's (1797 – 1851) *Frankenstein* (1818). Similarly, Dr Sarkissian in Nadel's *Deadly Web* (discussed in Chapter 5) performs post mortems late at night.

After the inquest, Sir Julian and Parker discuss the similarity between disease of the body and crime, the disease of society. Maria Cairney, in her article 'The Healing Art of Detection: Sherlock Holmes and the Disease of Crime in the *Strand* Magazine' (2008) has similarly noted the treatment of crime as disease. Sir Julian is convinced that mental weaknesses such as '"hysteria, crime, religion, fear, shyness, conscience"' are the result of a '"little mechanical irritation"', that is, that they have a physical basis (108). This

echoes Lombroso's linking of personality with appearance discussed in Chapter 1. While Sir Julian shares Aristotle's fascination with dissection, he nevertheless adopts the Newtonian position that everything, including the workings of the human mind, will eventually be explained through science. Bunter learns from Mr. Cummings, Sir Julian's manservant, that Sir Julian could '"take you or me to pieces like a clock, Mr. Bunter and put us together again'" (141). The concept of man as a sum of his parts, like a clock, is Newtonian in origin (see Chapter 1).

Lord Peter's breakthrough finally comes as a result of Aristotelian, non-empirical knowledge. He is convinced that '"somewhere I've got the key to these two things [the body in the bath and Sir Reuben's disappearance]. I know I've got it, only I can't remember what it is"' (131). To try to take his mind of his intense frustration, Lord Peter picks up a copy of Sir Julian's *Physiological Bases of the Conscience.* Mulling over the events of the day whilst reading, Lord Peter is overcome by a kind of epiphany as '[h]e remembered – not one thing, nor another thing, nor a logical succession of things, but everything' (133). The realisation is so intense that it brings on an attack of Lord Peter's shell-shock.

The body in the bath is identified as that of an unknown vagrant who died in the Chelsea Workhouse. The body in the supposed grave of the vagrant is exhumed and identified by Lady Levy as that of her husband. The exhumation is a typically (if parodied) Gothic scene, as '[t]he vile, raw fog tore your throat and ravaged your eyes' (173). The grave diggers are described as '[t]wo Dantesque shapes with pitchforks': the Master of the Workhouse as '[a] black-bearded spectre' (174).

Sir Julian, who is found writing a full confession, is arrested as he tries to commit suicide by injection. Sir Julian had once hoped to marry the now Lady Levy, and had harboured a desire for revenge ever since. Seeing Sir Reuben as lacking in conscience regarding his conduct towards his fiancée, Sir Julian regarded Sir Reuben as a fitting subject for experimentation. Sir Julian confesses that: '"[t]o the animal lust to slay and the primitive human desire for revenge there became added the rational intention of substantiating my own theories"' by dissecting Sir Reuben's brain (189).

Brian Baker, in his article 'Gothic Masculinities' in *The Routledge Companion to the Gothic* (2007), notes that 'the Cartesian cognito implies a reasoning, thinking subject

(*Homo sapiens),* and therefore one in which the 'passions' are excluded or expelled' (165). However, Baker alternatively proposes that 'the expulsion is incomplete: 'passion' is implicated in 'reason'' (165). So in as much as the Newtonian, unitary subject is one displaying true reason, Sir Julian's admission of passion does not exclude him from the precepts of the Newtonian paradigm.

Sir Julian's confession clearly illustrates the result of acceding to Darwinian animal impulses and Newtonian rationality whilst excluding any consideration of such concepts as morality or ethics which lie outside the jurisdiction of the Newtonian worldview. Darwin asserted that through reflection 'retribution will surely come' (*Descent* 91) as a result of giving in to animal impulses such as lust and vengeance (*Descent* 89). Sir Julian's own theories regarding the physiological basis of conscience and good and evil are closely linked to those of Lombroso. Sir Julian's chance came when he was asked to visit the vagrant in the workhouse. Recognising the similarity between the tramp and Sir Reuben, Sir Julian asked for his body to be sent to St Luke's after his death. He had then substituted the body of the tramp for that of Sir Reuben in an attempt to sever all connection between himself and the corpse.

The world portrayed in *Whose Body?* is a world still dominated by the Newtonian paradigm. This is seen in Lord Peter's enthusiasm for Baconian scientific method in his forensic examination of Sir Reuben's bedroom, fingerprinting and the details of the inquest. The increasing importance of technology is demonstrated by Bunter's excitement over his camera and the acquisition of a new lens.

Whilst basically supporting the dominant Newtonian paradigm, *Whose Body?* however, looks forward to a more holistic world view and so suggests the possibility of an imminent paradigm shift. For example, Lord Peter's relationship with Bunter and his integration within a network of family and friends supports the holistic paradigm's concept of openness and the dissolution of boundaries. This is also shown by the integration of what originally appeared as two separate cases into one. Similarly, it is the interconnectedness of the holistic paradigm which allows Lord Peter to establish links between Sir Julian and Sir Reuben which lead to the solution of the case. The world order depicted in *Whose Body?* anticipates a time when, belying social divisions, individuals may work together pooling their skills to the good of all.

Whose Body? demonstrates the continuity of the detective fiction form in its development of the interest and enthusiasm shown by Holmes for forensic science. At the same time it anticipates coming developments, for example regarding the character of the detective, the dissolution of Newtonian boundaries and the increased emphasis on the human body. These are discussed in more detail in relation to *Don't Monkey with Murder* (1942) in the next section.

The End of the Golden Age

Elizabeth Ferrars - *Don't Monkey With Murder* (1942)

This novel follows the familiar Golden Age format. The amateur detectives arrive to investigate a crime and after interviewing various characters, solve the crime via a variety of sub-plots and red herrings. The conclusions and the reasoning by which they are reached are explained to all the characters at the dénouement when the guilty party is named. The limited cast comprises the usual stock characters, for example the vicar, local GP, the titled landowner, the wealthy lady and her companion and the detecting duo. As is common in Golden Age examples, the drama is all played out in a limited geographical area, demonstrating the influence of the Newtonian concept of enclosure within unbreachable boundaries.

However, there are several subtle differences between *Don't Monkey with Murder* and earlier examples of the genre such as *The Sign of Four* and *Whose Body?* Many of these differences suggest, or perhaps reflect, a weakening of the influence of the Newtonian paradigm. The narrative is written in the first person, for example, giving the story an uncharacteristic immediacy which undermines the Newtonian separation of the reader from the story, separation which predominated in earlier examples of the genre. Compared with Holmes and Watson and Lord Peter and Bunter, Toby and George no longer resemble solid, discrete Newtonian objects. Their personalities take on a far more elusive quality. Toby's profession is unclear, although he is called simply 'a detective' by Mrs. Peach, Miss Miall's adopted daughter (136). Toby and George are similarly referred to as 'fancy detectives' by the rather dim Sergeant Sawbry of the local police (151). Through this assimilating of the personalities of Toby and George within the detecting process, *Don't Monkey with Murder* looks towards the holistic paradigm in its blurring of the boundaries between the character of the detective and the detecting process itself.

In his constant questioning of possible suspects, Toby articulates the characters' thoughts and emotions. George demonstrates the importance of Baconian scientific method and the collection of objective evidence. Such evidence includes blood stains and the bullet fired from the murder weapon. However, it is with the collection of evidence that George's use of the Baconian method ends. The real forensic science work is no longer carried out by the detective. The first forensic science laboratory in the United Kingdom was established in 1935 (White 5), seven years before the publication of *Don't Monkey with Murder*. The characters of Toby and George also weaken the Newtonian boundary between subject and object. Toby and George appear only to exist within the confines of the story and no allusion is ever made to their having any life beyond it. They are both products of the plot and external to it, the murders having been committed before their arrival.

The story opens when Toby and George are summoned to the village of East Leat by a letter from Paul Virag telling of the repeated kidnap of Irma, whom they assume to be human. They are met at Bule station by Virag's daughter, Marti, who explains that Irma is a chimpanzee. Virag is a psychobiologist from Tobago, who has been carrying out research into the mentality of chimpanzees. Rosa Miall's deceased father Wilfred funded Paul Virag's research. Rosa agreed to continue providing funds on the understanding that the research station would be named after her and her father, that the research was carried out humanely and that Virac brought her two chimpanzees. The day following the Virag's arrival in England with the chimpanzees, Irma and Leofric, Miss Miall disappears.

Dr Virag's concern for his chimpanzees demonstrates another, perhaps dangerous, aspect of the holistic paradigm's blurring of boundaries. Dr Virag's chimpanzees seem to have usurped his daughter's position in his affections. Dr. Virag regards the chimpanzees as almost human. While he tries to understand their personalities, his daughter suggests that he is 'in the habit of shutting her up and feeding her on bread and water' (116), behaviour more appropriate to the treatment of chimpanzees. The confusion between chimpanzee and human being shows the covert influence of Darwinism, suggesting that although Darwin's researches may have established the link between chimpanzee and human, the boundary between the two must be maintained.

Returning to the house Toby, George and Miss Virag meet the local GP, Dr. Glynne, who has come to examine the injured hand of Mrs. Peach, who is living at the house. They find the chimp Irma dead on the carpet with a knife through her heart, and Leofric missing. Dr Glynne concludes from the huge amount of blood that the blade must have pierced her heart. The length of the blood stain seems to suggest that the body has been dragged across the carpet.

Sergeant Sawbry arrives but shows little interest in the killing. Toby initially thinks that Virag himself killed Irma, possibly for the insurance money, but George disagrees. George thinks he knows, through Aristotelian intuition, who killed the chimp but is not prepared to commit himself without firm Newtonian evidence. As Lord Peter Wimsey knows, in *Whose Body?,* that he has the answer somewhere in his psyche, George has '"got a feelin'… I got a feelin' I know *why* it was done … And it's mighty nasty"' (175).

Fears for Miss Miall's safety grow when her handbag containing a revolver, which has fired one bullet, is discovered. Toby tries to convince George of his new theory that Miss Miall killed Irma. To confirm his own theory, George needs to find the bullet fired from the revolver. His discovery of the bullet in the body of Miss Miall buried in a shallow grave in the wood, however, disproves it. George's erroneous reasoning illustrates Bacon's point that without concrete factual evidence any conclusions reached will be completely unreliable and therefore useless (see Chapter 1).

In a scene reminiscent of a Christie dénouement, Toby gathers all the characters together at the house as the police set off to search the wood. As discussed in Chapter 1, such closure supports the Newtonian concept of the world as a closed system. Toby starts by explaining how his theory has developed, pointing out that his first mistake was '"in my approach to the question of motive … I'm afraid I got the whole thing wrong"' (231). Toby had eventually accepted George's final theory that '"Irma was killed *simply because she wasn't a human being*"' (233).

Toby's error was in allowing his Aristotelian subjective feelings dominance over the actual Newtonian evidence. He was '"thinking much too anthropomorphically,"' too anxious in pursuing Aristotelian human qualities, such as '"motives of jealousy and greed and anger – motives that would have suited the case if Irma had been a human

being"' (231), while ignoring a fundamental fact of the case - that Irma was not human. Had he noticed, as George did, the Newtonian *quantity* of blood present at the murder scene, his investigations might have followed a different course. George also demonstrates the benefits of Newtonian division as he recognizes the difference between the murders of the chimpanzee and of Miss Miall. The one murder scene disguises the fact that two murders have been committed. George is able to separate them into two discrete Newtonian events.

Dr. Glynne and Mrs. Peach were in love. Discovery by Miss Miall would result in Mrs Peach being disinherited as she is a married woman. Miss Miall returned home unexpectedly and caught them. Mrs. Peach grabbed the gun and shot her. Dr Glynne buried the body of Miss Miall in the wood. He then killed Irma and used her body to disguise Miss Miall's murder. The body of the chimp was dragged across the carpet in an attempt to disguise the human blood on the carpet. Mrs. Peach laughs with 'a hideous cackle of laughter, wild with hysteria' when confronted with this theory (246). She laughs because there is no proof. She knows that without concrete scientific evidence of the Newtonian paradigm, she will not be convicted in a court of law. However, she is mistaken. The carpet has been taken to the cleaners by George. The underfelt, however, is in a suitcase under his bed so that '"[w]hen some clever chemist gets to work on it, I reckon he'll be able to prove that one splotch of blood is a chimpanzee's and the other a human being's"' (251). George knows the importance of the exact Baconian scientific evidence, of 'some clever chemist' to the success of the case.

Mrs. Peach's fate demonstrates the dangers of railing against Aristotelian settlement. Had Mrs. Peach 'remained in her own station of life, instead of getting grand notions all along of being adopted by Miss Miall' (155) and had she been content with her marriage to Percy Peach, all would have been well and Miss Miall would not have been murdered. Mrs. Peach's rebelling against her Aristotelian 'natural position' as a married woman leads her to commit murder.

Don't Monkey with Murder extends the interest in the nature of the physical body previously noted in relation to *Whose Body?* The preoccupation of Toby and George with the body of the chimpanzee initially causes Toby, if not George, to see the chimp Irma as the sole victim, thus distorting his assessment of the case. Until the last nineteen

pages of the book, the detecting process carries on as if Irma were human, interviewing suspects and trying to find forensic evidence. Toby is erroneously trying to construct a case on the basis of motive: motive for murdering the chimp. Only at the end is it revealed that Irma was murdered to cover up the murder of Miss Miall, the chimp's dead body and blood disguising her blood.

It was really George, not Toby, who had arrived at the correct conclusion because George assessed the evidence according to the Baconian methodology of the Newtonian paradigm, that is, objectively and without emotion. In doing so, George was immediately able to spot the importance of the discrepancy between the amount of blood and the size of the chimpanzee. As George explains: "'it all came out of tryin' to find an explanation for the shape of the stain of blood … I remembered the very first thing Tobe said when he bent over her as she lay there. 'And bled enough for two!'"' (251). As Sir Julian tried to do in *Whose Body?*, Dr. Glynne commits suicide by injecting himself with morphine.

Post World War Two: Decline or Rebirth?

Many of the defining features of pre-war Golden Age detective fiction were lost or greatly modified in its post-war counterpart. Creasey's *Inspector West Alone* offers a good illustration of many of these modifications and so is considered in some detail here. For example, as detailed in David Schmid's research paper, 'From the Locked Room to the Globe: Space in Crime Fiction' (2009) the closed environment of the country house has been replaced by ever larger crime scenes. The plot of Creasey's *Inspector West Alone* is played out in a variety of locations in the South East of England.

This widening of the geographical area of the crime scene is developed even further in Nadel's *River of the Dead* (2009) where the murders take place in a variety of widely spread locations throughout Turkey. The country house could be regarded as representing the Newtonian enclosed system (see Chapter 1). The widening out of the locus operandi of the detective story is perhaps a metaphorical representation of the expansion of worldview to include much which the Newtonian paradigm excluded, such as psychic forms of knowledge. While it might also represent the increasing

globalization of the twenty first century, the widening out of the plot might also be influenced by the development of the world market in detective fiction. It is similarly worth noting a corresponding move in other fiction from c.1900 onwards as witnessed by the worldwide adventure fiction of, for example, H. Rider Haggard (1856-1925) and Joseph Conrad (1857-1925)

Reflecting the development of the modern post-war police force, West is no longer the Knight Errant working alone or with a partner, but is a member of the official police force. By the end of the Second World War, the detective presented a far more human persona, often, like West, having a family and an existence outside the detection process. West might still present the figure of 'a daring active police hero' (Knight 155), but he is also a family man. He has a wife Janet and two sons whom he loves dearly. The many facets of his personality and of his life demonstrate the interconnectedness and wholeness of the holistic paradigm. Presenting the detective as a more rounded figure allowed readers to identify themselves more closely with the detective. The readers' increased empathy allowed them greater access to the detecting process, drawing the reader further into the plot. This undermined the Newtonian division between the reader and the novel.

Whereas in *Don't Monkey with Murder* George was still responsible for the collection of scientific evidence, future detectives, like West, would find themselves distanced even further from the practice of forensic science. This distancing of the detective from Newtonian scientific practice served also to free him from its constraints. No longer confined and bound by the precepts of the Newtonian paradigm, the detective became free to employ other forms of knowing, such as intuition, in the solving of crime.

John Creasey - *Inspector West Alone* (1950)

Inspector West Alone also extends the form's interest in issues of identity noted in the discussion of earlier examples of the genre. In *Whose Body?* , not only is the identity of the killer unknown, the identity of the victim is, for most of the novel, at issue also. A development in *Inspector West Alone* is that the identity, character, personality and motivation of the detective himself is also uncertain for much of the story. This concern with issues of identity provides a link with later examples of the form which similarly

investigate identity and the state of being human. The importance of identity within the work of Hill and Nadel will be discussed in more detail in Chapter 3 and Chapter 5.

Inspector West Alone is also important in that the role of Chief Inspector West of Scotland Yard is transitional between earlier amateur detectives, such as Holmes, Lord Peter and Toby and George and the professional detective. As a professional detective, Inspector West might expect to have at his disposal the support of all the resources and manpower which the established police force could offer. However, rather than having the support of the police service, it initially works against West as he himself is suspected of having committed murder. As West occupies the middle ground between detective and criminal, he also occupies a position somewhere between the professional and the amateur detective as his actions for the most part are not sanctioned or supported by the official police force. The character of West thus demonstrates a blurring of boundaries between the policeman and the criminal characteristic of the holistic paradigm.

The novel commences with West receiving a message, supposedly from his wife, to meet him at Copse Cottage in Surrey, the home of her cousin Phyllis. Arriving at the cottage late at night, West finds it in darkness. Short, one-paragraph sentences alternate with passages describing the scene heavily laced with imagery reminiscent of the Gothic novel. These quickly build a mood of suspense, fear and dread. West tries to remain reasonable and rational, but his fear grows. While he tries to gain entry to the house, his car is stolen. His grip on rationality weakens, for '[h]ow could it be explained rationally? There was a touch of fantasy about it, as well […] as a touch of the sinister' (9). As West wonders what to do, 'he heard the scream. Wild, shrill, eerie, it played on his taut nerves like a saw on an iron bar; and he knew that it was a woman's scream' (10). Worried for the safety of his wife, West breaks in, is attacked and rendered unconscious. Unlike earlier examples of the genre, West and his concern for his wife form an integral part of the story from its very beginning. West is not an objective observer like, for example Christie's Poirot. In line with the percepts of the holistic paradigm, he is an integral part of the story, but unlike Toby and George, he is not created by it.

Regaining consciousness West sees the dead body of a woman 'with her head smashed to pulp' lying on the bed (18). The police arrive and he realizes that he is being framed

for the woman's murder. Reassured that the body is not that of his wife, he reflects on the seriousness of his position: '[a]s a frame-up, it was nearly perfect' (21). The plot becomes increasingly more complicated when he is kidnapped from the police car taking him away from the crime scene. He wakes up in a secure clinic where he is under the care of Marion and is himself known as Mr. Arthur King. He constantly asks himself the question 'Why?'

His captors try to disorientate West until he is unsure of his own identity. Sometimes he is called Mr. Arthur King and sometimes West. Sayers points out that '[i]n place of the adventurer and the knight errant, popular imagination hailed the doctor, the scientist and the policeman as saviors and protectors' (Winks 56). The renaming of West as Arthur King (King Arthur) seems to emphasis the link implied by Sayers between the knight errant and the detective. In switching names, West is perhaps switching roles. One of the features of the Newtonian paradigm is that objects are discrete and unchanging. The character of West looses its Newtonian discrete, unique quality as his identity becomes less distinct.

West's initially unnamed (unidentified) male captor continually asks '"Why did you do it, West? *Why?*"' as though he is convinced of West's guilt (59). A weakness of the Newtonian paradigm is demonstrated here in its failure to be able to satisfactorily answer West's constant questioning of 'Why'. The question 'Why' is important to the Aristotelian paradigm, because in answering it, one gains knowledge and understanding. The question 'Why' also supports the Aristotelian view that the world is teleological, that everything must have a purpose (*Physics* 48-50). The Newtonian world, on the other hand, is orderly and follows a strict set of laws: it does not answer the question 'why': it only demonstrates 'what is'. The Newtonian worldview does not, then, supply all the answers for West. West does not understand if his captors really believe he is guilty or are trying to convince him of his own guilt. West tries to employ Newtonian rationality to establish reasons for their wanting to frame him, but the question remains unanswered. His captor continually points out the weakness of West's position, telling him that 'the only courses open to you are to play ball with me *or* kill yourself' (66).

The captor is identified as Mr. Kennedy. Kennedy wants:

> you West. The man and the policeman. Your knowledge of crime and of police methods. I want the expert on criminal investigation … I want everything. I

> want you, not part of you. Mind, body, soul, if you're fool enough to think you've got a soul. The rest steps out and I take possession. (72)

Kennedy wants everything which makes West his Newtonian distinct, discrete self. He wants to possess his identity. The only way out for West is to agree or die. West tells himself again to 'Be *rational*; use reason' (72). West is determined to remain as 'the unitary, rational Enlightenment subject … [who] not only expels the non-rational but seeks to understand the Other through rational means' (Baker *Routledge* 165). Kennedy tells him to forget the past. The people looking for him '"…won't find you. You won't look yourself. You won't be yourself"' (72). West's identity is to be replaced with another as West is reported in the media to be missing, which indeed he is, if in a different sense.

In an attempt to get to the bottom of the case and in the hope that he might be able to amass the evidence needed to convict Kennedy of whatever crimes he is guilty, West goes along with him. Trying to retain some control over the situation, and to stay alive, West agrees to adopt the Newtonian favouring of motion over stasis. He allows his personality the fluidity this requires by his changing identity. West is also anxious to protect his wife and children from Kennedy. He does not realize that '[t]he second stage in the transformation of Roger West' involves plastic surgery which will render him unrecognizable even to his closest friends (77). The surgery goes ahead. Within the Newtonian paradigm processes are reversible, but for West there is no going back: the Newtonian paradigm no longer holds true. He will never look as he did before the surgery.

West's personality, identity and character are forced into the constant motion of the Newtonian paradigm. West is set up by Kennedy as a commission agent named Charles Rayner with offices in Covent Garden. As Rayner, West is dragged deeper and deeper into an illegal underworld when he is forced to plan and execute the goal break of currency smuggler James Delaney from Brixton. 'Day by day, he grew into life as Charles Rayner. Day by day, Roger West receded'. However, when Kennedy wants him to murder his friend Chief Inspector Sloane, West realizes that the game can go no further (118). The replacement of the character of West by that of Rayner is halted; his rebellion against Kennedy begins. Kennedy allows West more and more freedom, freedom enough to contact an old friend, private inquiry agent Pep Morgan. Using yet

another identity, that of a Mr. Brown, West recruits Pep's services in order to learn Kennedy's home address, where he lives as a Mr. Hemmingway.

From this point onwards his identity as Rayner starts to weaken. In a slip back into the character of West, he uses Morgan's nickname 'Pep' which is only known to a very few close friends. Perhaps it is possible for motion and change to be reversible as held by the Newtonian paradigm, at least to some degree. Although West may never look physically the same again, his personality and character might return to what they were. The two main characters now have multiple aliases. The evil character is known as Mr. Rayner, Mr. Kennedy and Raymond Hemmingway, while West has been known as West, Mr. King, Rayner, and Brown.

Kennedy appoints Rayner a minder, Harry. Harry is very unhappy when Marion, whom he liked, is murdered. Taking a risk, West trusts him telling him of his plans to expose Kennedy. Harry readily agrees to help. West and Harry break into Kennedy's home. Kennedy catches them and summons the police. But by this time, Sloane has realized that Rayner is West. Kennedy, his wife and sister are caught. Their business empire has been built up on blackmail over many years.

West is reunited with his wife and sons who readily accept him despite his altered appearance. The Aristotelian paradigm favours qualities of the soul over quantity and physical appearance. The novel ends on a positive note. West knew that '[it] would be all right; everything would be all right. He was alive again' (240). As Plain points out, for all 'its obsession with death, the [detective fiction] narrative remains one of resurrection' (Plain 42).

Post-War Change and Diversity

The growing diversity of detective and crime fiction since the Second World War has led to the development of a series of separate genres and sub-genres. The American 'tough guy' or 'Hard Boiled' school, the Thriller and the Police Procedural are generally regarded as separate genres, while Priestman identifies the Detective Whodunnit, the *Noir* Thriller, the Anti-Conspiracy Thriller and the Detective Thriller as sub-genres. Jerry Palmer feels, on the other hand, that 'the tough thriller and the detective story are the same genre: the thriller. [...] Such differences as there are are insignificant in

comparison with what they have in common' (100). Knight also identifies the sub-genre of Psychothriller, 'where the psychological emphasis justifies the sense of disturbing excitement in the term' (xii) while emphasizing 'the psychic internalization of crime' giving the works of Patricia Highsmith and Ruth Rendell (especially when writing as Barbara Vine) as examples (147).

However, it is arguably within the works of James that the strongest links with the work of Conan Doyle and Golden Age detective fiction are to be found. Knight describes James as 'Christie's strongest follower' (92). Horsley calls James 'one of the most conservative of British Crime writers' (58) while naming her as one of the writers whom she sees as re-examining 'the ordered world of classic detective fiction, [and] entering into a dialogue with the assumptions stereotypically associated with it' (53).

P.D.James – *The Black Tower* (1975)

Such a re-examination is demonstrated clearly in *The Black Tower.* On the one hand, *The Black Tower* looks toward the future of the genre, for example by developing the trend noted in *Inspector West Alone* of portraying the detective as truly human in his vulnerability and weaknesses. For example, Dalgleish's first appearance in *The Black Tower* is as an invalid in hospital, not as a detective.

On the other hand, in James's reinterpretation of the Golden Age country house setting as, for example, in Christie's *After the Funeral* (1953), James clearly demonstrates the link with earlier examples of the genre and with the literary Gothic noted by Rowland (45). Moreover, Horsley notes how James, along with Rendell 'broaden their aims […] to address what they see as serious moral and social issues […] [w]hilst still retaining key characteristics of classic detective fiction' (54). In broadening their aims James and Rendell are breaking out from the Newtonian closed system which characterised earlier examples of the genre. Horsley further points out James's interrogation of the 'order/disorder binary that is at the heart of traditional detective fiction' (55). This is particularly relevant as it relates to the Cartesian concept of binaries which supports the Newtonian paradigm (discussed in Chapter 1).

Like Creasey's *Inspector West Alone, The Black Tower* also displays an almost complete lack of overt scientific techniques and forensic evidence. Horsley's

observation that James's *A Mind to Murder* (1963) offers a reassessment of 'the requisite skills of the investigator, about the relative importance of precise investigative techniques as opposed to self knowledge' is equally applicable to *The Black Tower* (55).

At the opening of the novel, Dalgleish is recovering from 'an atypical mononucleosis' (8), which doctors initially thought to be leukaemia. It is Dalgleish, the detective, who is under the shadow of death, not the victim, or the murderer (as would have been the case in Golden Age examples). For Dalgleish, '[t]he sentence of death had been communicated, as he suspected such sentences usually were, by grave looks, a certain false heartiness, whispered consultations, a superfluidity of clinical tests, and, until he had insisted, a reluctance to pronounce a diagnosis or prognosis' (8). His nearness to death altered Dalgleish's outlook on life. He felt that '[t]he time had come to change direction' (9).

The Black Tower extends the previously noted increasing preoccupation with the body to include not only the corpse, but also the body of the detective. The reader is not only informed that Dalgleish has been ill, but is given details of his illness. The reader thus becomes privy to both his bodily weaknesses and his resultant mental state. The detective is no longer the Newtonian solid object: he is becoming transparent. The notion of transparency is developed further in Jardine's *Death's Door* (2008), the implications of which are discussed in greater detail in Chapter 4.

Dalgleish's reprieve from the death sentence is similar to West's resurrection to his past life in Creasey's *Inspector West Alone* and provides a further example of the genre's defeating or solving of death. Dalgleish's illness, whilst not separating him from life, certainly separated him from the life he used to lead. It restored the Newtonian barriers between his inner life and his life as a policeman. During his illness he had become resigned 'to the role of spectator' (15). He had once more become an outsider. From his restored objective viewpoint, he viewed his life from a different perspective, making him unsure if he could, even if he wanted to, return to 'Judges' Rules, rigor mortis, interrogation, the contemplation of decomposing flesh and smashed bone [and] the whole bloody business of manhunting' (9). Whilst considering his future, Dalgleish accepts an invitation from Father Baddeley, an old family friend, to visit him at Toynton Grange, a home for the young disabled, where he is now Chaplain.

The language used to describe the bleak Dorset landscape surrounding Toynton Grange demonstrates the influence of the Gothic whilst owing much to Romanticism. Dalgleish, like Emily in Anne Radcliffe's (1764 – 1823) Gothic novel *The Mysteries of Udolpho* (1794) takes frequent walks along the cliff: a time to think and clear his head. Dalgleish's first impressions of the coastline are little less than eerie: '[T]he headland was silent, birdless. He sensed something strange and almost sinister in its emptiness and loneliness which even the mellow afternoon sunlight couldn't dispel' (18). This resembles Emily's description of her walks: 'the sun […] gave only a feeble light as its rays struggled to dispel the vapours that ascended from the sea' (Radcliffe 352). The headland of Toynton Grange also bears a close resemblance to descriptions of Dartmoor in Conan Doyle's *The Hound of the Baskervilles* (1902). Both are connected to the Darwinian struggle for existence associated with the Newtonian paradigm as discussed in Chapter 1.

Dalgleish's frequent walks also offer time for reflection, the bleakness of the landscape influencing, and to a certain extent mirroring, his thought processes and mood. A good example of this is Dalgleish's first walk to the black tower (108). The black tower of the title is 'a squat intimidating folly' with a sinister past (109). The fate of Wilfred's great grandfather within the tower has strong Gothic overtones. Telling everyone else that he was going on a trip to Naples, he had secretly walled himself up in the tower to await the second coming. Having second thoughts 'he'd torn his fingers to the bone trying to get out' (113). His body was found over three months later. The depth of feeling and strength of mood created here lie outside the sphere of influence of Newtonian science but are still shown to be of considerable importance. Dalgliesh's Romantic sensibilities and the Gothic tone and language not only undermine the Newtonian paradigm here but also serve to link *The Black Tower* with its literary heritage.

Dalgleish enters Father Baddeley's cottage, which he used to visit as a child, to find it empty. The cottage brings back strong childhood memories. At several crucial points within the novel, Dalgliesh appears to move within different time zones simultaneously, such as his childhood and the present day. Time is not absolute and unidirectional, but conforms rather to the holistic paradigm's concept of time as multidirectional and unstable. For example, at a time when he feared he was nearing the end of his life, his

memories take him back to his childhood, the beginning of life. Reflecting later, Dalgleish saw his life at Toynton Grange:

> as a series of pictures, so different from the later images of violence and death that he could almost believe that his life at Toynton Head had been lived on two levels and at different periods of time. These early and gentle pictures, unlike the later harsh black and white stills from some crude horror film, were suffused with colour and feeling and smell. (150)

His childhood visits to Maiden Castle reminded him that 'four thousand years of human history were encompassed in numerous contours of moulded earth' (150). This has echoes of Sir Charles Lyell's (1797-1875) work *The Principles of Geology* (1831) which argued that the natural order of the past was uniform with that of the present: the same natural laws held true and the same physical processes occurred (*Principles* 1). This in turn links in with both the natural theology of the Aristotelian paradigm and.Darwinian evolution of the Newtonian paradigm (see Chapter 1). Perhaps James is offering a metaphor for human behaviour. The same motives of love, hate, greed, for example, drive man (perhaps as murderer) today as they have always done.

Maggie Hewson, the wife of the Grange's medical officer Eric, enters the cottage. She explains that Father Baddeley has died of a heart attack. They discuss Father Baddeley's death and she explains the structure of the community at Toynton Grange. Originally built by Wilfred Anstey's grandfather, it was left to him in his will. Wilfred developed MS which progressed rapidly until he was apparently cured by immersion in the water at Lourdes. In return, he promised God that he would devote his money and the Grange to the care of the disabled. The Grange now only has five residents remaining.

At tea, Dalgleish is introduced to the residents and staff by Anstey. These include Julius, Father Baddeley's sister Millicent, patient Grace Willison, Eric Hewson and the odd job man, Albert Philby. Although Dalgliesh only had 'vague suspicions […] coupled with a] sense of foreboding', it soon becomes obvious to Dalgleish that all is not well at the Grange (99). Several of the residents have recently received poison pen letters. Due to the Grange's financial difficulties, it is feared that Wilfred will either have to sell up or transfer the Grange to a private charity, the Ridgewell Trust, who have expressed an interest. Not all the residents are happy there. The power structure at the Grange is strongly hierarchical reflecting the influence of the Aristotelian paradigm. Wilfred takes on a role reminiscent of the 'master' of Aristotle's *Politics* (350BC).

Some residents resent Wilfred's domination. For Julius, Wilfred was 'Playing God' (112).

Grace Willison dies in her sleep. Eric Hewson, recently restored to the medical register, is reluctant to issue a death certificate as he did not expect her to die for at least another eighteen months, although thinking that '[o]bviously it's a natural death' (194). Dalgleish ponders on Grace's death 'trying to understand and analyse the root of his concern and unrest, emotions which seemed to him illogical to the point of perversity. […] Why then this irrational suspicion? He was a professional policeman, not a clairvoyant' (206). So, unlike Jardine's Bob Skinner or Hill's Andy Dalziel, (see Chapters 3 and 4) Dalgleish does not trust his inner voice. In this at least, Dalgleish is ruled by the Newtonian paradigm which privileges rationality over the unexplainable.

Eric asks for a forensic pathologist to sign Grace's death certificate. The pathologist is a locum tenens who was disenchanted with his 'stint of duty in the agreeable West Country'. Overworked, he takes little time over the post mortem, but did discover 'advanced neoplasm in the upper stomach' (213). The cancer seems to explain her premature death. With nothing to arouse his suspicions, the pathologist looks no any further and so fails to notice the signs of asphyxiation. The pathologist, the personification of Baconian scientific method and Newtonian science, is shown here to be ineffectual.

Returning to Hope Cottage after Grace's funeral, Dalgleish is increasingly uneasy.

> [L]iving in Father Baddeley's cottage, sleeping in his bed [he] had absorbed something of his personality. He could almost believe that he smelt the presence of evil. It was an alien faculty which he half resented and almost totally mistrusted. And yet it was increasingly strong. He was now sure that Father Baddeley had been murdered. And yet, when as a policeman he looked hard at the evidence the case dissolved like smoke in his hands. (217)

Dalgleish resembles Nadel's Inspector Ikmen in that he has difficulty in reconciling his intuition and gut feelings with the Newtonian rationality implicit in his role as a detective. Even though Dalgleish has considered resigning from the police force, he cannot escape reacting to situations as a policeman. Julian had noted: "'My God, Dalgleish, you have a policeman's soul haven't you? '" (210). Being a policeman is not an occupation from which one can maintain some distance: a policeman can never be totally separated from his profession.

Perhaps the spirituality of the funeral, or its ritual element had affected Dalgleish's perception, making him more open to feeling and extra-sensory perception. Dalgleish is, after all, a poet. Wheeler notes how many philosophers were poets (44). Dalgleish's widened mental perceptions have much in common with the Romantic imagination. His past experiences of illness and death have increased his sensitivity and awareness of that which cannot be described from within the confines of Newtonian science. In Dalgleish, detection becomes increasingly more of an art than a science. His mind has shifted from functioning according to the rationality of the Newtonian paradigm to accepting the veracity of his powers of extra-sensory perception recognized within the Aristotelian and holistic paradigms. His experiences are similar to those of Peter Pascoe in Hill's *A Killing Kindness* when he is briefly at risk of drowning.

After the funeral, Dalgleish decides to walk along the cliff to clear his head. The description of the mist as 'a writhing transparent veil' is again reminiscent of the Gothic (218). The uncanny silence contrasted with the 'all pervasive, disorganized, menacing' swell of the sea disorientates Dalgleish (218). He loses all sense of place and direction as if struggling within some primordial soup as, suddenly, '[t]he black tower reared out of the mist '(218) startling him. The privileging of quality over quantity, in the descriptions of Dalgleish's feelings and experiences when walking on the Head, also demonstrates the influence of the Aristotelian paradigm.

Returning from his walk, Dalgleish learns that Maggie Hewson has apparently hanged herself and left a suicide note. The police are called and Inspector Daniel arrives. Partly as a response to this further death, Wilfred holds a family council to announce that the Grange will be transferred to the Ridgewell Trust at the end of the month. Dalgleish realizes that the key to the whole case lies in 'the list of Toynton Grange Friends, missing since Grace Willison's death, those sixty-eight names which Grace had known by heart' (257). Unknown to Wilfred, the Grange is the site of a heroin smuggling operation run by Julian. The heroin is brought in to the Grange hidden in the wheel chairs from the twice-yearly pilgrimage to Lourdes. At the Grange it is packed into tins of talcum powder which the Grange sells to raise funds and is distributed via certain of the Friends. The list of the Friends' names and addresses conceals the names and addresses of the members of the smuggling ring.

For Dalgleish, the case was a jig-saw. It was not the last piece that mattered but 'the neglected, uninteresting small segment' (258). But as 'his mind continued to shuffle the pieces of jigsaw' (260), he realised that 'it was still all conjecture, all speculation' (261). He had no proof, no Newtonian evidence. Like Dalziel in Hill's *Bones and Silence* (see Chapter 3) he now trusts his intuition. He knows that he is right whilst also knowing that he cannot prove it.

Julius murdered Father Baddeley, Grace Willison and Maggie Hewson when they became suspicious of his activities. Dalgleish confronts Julian who threatens to shoot him. Philby rushes into the Grange and is shot dead by Julius. Dalgleish immediately starts to think again as a police officer, within the Newtonian paradigm, noting forensic details such as the lack of blood and power marks on the body. Julius intends to kill Dalgleish. He will put the bodies of the two murdered men into Dalgeish's car and dispose of it over the cliff. Throughout his ordeal, Dalgleish tries to leave forensic evidence such as a palm print on the bumper of the car and his blood in the boot. However, this Baconian forensic evidence is redundant: it is never required. .

Julius drives Dalgleish to the black tower where he shoots him in the shoulder. In a scene reminiscent of the struggle between Holmes and Moriarty in 'The Final Problem' (Doyle,1893: 480), the two adversaries 'fought like famished animals clawing at their prey, without skill, eyes stung and blinded by rain, locked in a rigor of hate' (285). Finally help arrives. Realising that all hope is lost, Julius hurls himself into the sea in a scene similarly to Chung's suicide at the end of Hill's *Bones and Silence.* Julius's body, again like those of Holmes and Moriarty is never found.

Like Hill's *Good Morning, Midnight, The Black Tower* ends as it began, with Dalgleish in hospital. Barely conscious, Dalgleish seems unaware of all that has befallen him. He is just aware that he is not going to die of leukaemia. Time has moved in an Aristotelian circle for Dalgleish defying the Newtonian concept of time as unidirectional, as discussed in Chapter 1.

The Black Tower demonstrates the influence of the holistic paradigm in its breaking down of the divisions and boundaries associated with the Newtonian paradigm. It breaks down divisions between different literary genres such as the Romantic, in the descriptions of the countryside, and the Gothic, in the description of the Grange and the

black tower. *The Black Tower* supports elements of the holistic paradigm in its ability to preserve separation of these two influences whilst containing them within the detective fiction form. In merging the detective fiction form with that of the Gothic and Romantic novel, James is not only blurring the boundaries between different literary genres, but is also bridging the gap between the different time periods in which these forms were prevalent.

Conclusion

The novels of the Holmes era, as represented by *The Sign of Four,* generally demonstrate considerable sympathy with the precepts of the Newtonian paradigm. The Newtonian concept that complete separation between subject and object is possible is reflected, for example, the character of Holmes himself as a loner who generally stands outside society and is an objective observer of the crimes he is called upon to solve. His methods pay lip-service to the requirements of the Newtonian-inspired Baconian scientific method, even if Newtonian forensic science rarely solves the case alone. Holmes is certainly an enthusiast for the possibilities inherent within a scientific world view and presents science to his readership in a positive light. He fosters a love of scientific learning through his enthusiasm for experimentation and his use of fingerprinting, photography and blood analysis.

Holmes's method of detection, however, still demonstrates the influence of the Aristotelian paradigm in the importance Holmes places on knowledge both as inherited wisdom (the nature of poisons) and knowledge acquired through personal experience (Holmes's experimentation into blood grouping).

Detective fiction of the so-called Golden Age as represented by Sayers's *Whose Body?* develops the detective's interest in Newtonian forensic evidence and shows an increase in reliance upon technological devices, such as the camera, to aid detection. However, *Whose Body?* shows a characteristic breaching of the subject/object divide in that Lord Peter is more greatly involved in the case than would have been Holmes. The character of Lord Peter shows development over that of Holmes in that Lord Peter demonstrates human qualities and feelings associated with the Aristotelian and holistic paradigms. He is more of a complete human being with friends and family: he is worldlier than Holmes.

Whose Body? demonstrates a growing interest in the human body as object, for instance in the increased length of the descriptions of autopsy reports. The Newtonian perception of the human body as a collection of discrete individual parts is explored and the weaknesses inherent in this viewpoint exposed, for example in Sir Julian's assertion that a propensity for good or evil results from the physiology of an individual's brain.

This preoccupation with the human body is developed further in Ferrars's *Don't Monkey with Murder.* Ferrars offers a critique of the human condition by examining the effect of interchanging monkey and human. Elements of the holistic paradigm are suggested by the elusiveness of the characters of Toby and George. Newtonian barriers such as between subject and object and between the detective and the detecting process cease to exist in the world portrayed here. Toby and George become little more than a product of the detecting process, having no existence outside of it. However, it is still the Newtonian forensic examination of the blood on the underlay of the carpet which provides the essential evidence necessary for a satisfactory conclusion to the investigation.

Inspector West Alone extends the examination of the effect of the breakdown of Newtonian barriers. The divisions in and around the character of West are dissolved to such an extent that he nearly ceases to exist. This demonstrates the necessity to maintain some divisions, especially to establish and maintain individual identity. A human being is as much defined by what he is as by what he is not. The Newtonian paradigm is shown as deficient, though, in its inability to provide the answer to the all-important question 'Why?', as Newtonian science can only answer the question 'What?'

In *Inspector West Alone* the influence of the Newtonian paradigm is weakening as its effectiveness and power to solve the ills of the world decreases. Newtonian divisions between subject and object, police and criminal, good and evil, hunter and the hunted cease to exist in the character of West. In his multiple personalities he is both inside and outside the case simultaneously. Newtonian technology and Baconian-inspired scientific method play no part in the detecting process here and yet still the crime is solved. West solves the case through a combination of Aristotelian logic and Aristotelian qualities such as loyalty, trust and moral integrity when he refuses to murder his friend Sloane.

In James's *The Black Tower,* the Newtonian paradigm is weakened still further, for example, in an undermining of the Newtonian understanding of time as continuous and unidirectional. Dalgleish finds himself in a more holistic world where he is simultaneously subject to the influence of his past and present, a feature further developed in Hill's *Good Morning, Midnight,* discussed in more detail in a subsequent chapter.

The lack of the influence of Newtonian-inspired forensic science, noted with regard to *Inspector West Alone,* is present to a greater extent here. This diminished reliance on the precepts of the Newtonian paradigm is reduced still further in the work of Hill and Nadel discussed in detail in Chapters 3 and 5. Similarly, in *The Black Tower,* Dalgleish is both inside and outside the story, occupying a far more holistic position within the novel. The division of his character between policeman and private citizen is also breached as he decides within which role his future lies. The separation between the religious enclosed community and an ever more secular modern society will cease to exist with the transfer of the Grange to private ownership. However, this integration and interconnectedness of the holistic paradigm has its negative side. It can create a sense of insecurity (as felt by the remaining residents) and vulnerability and a fear of the future. These concerns are developed to a greater extent in the more recent detective fiction of the Hill, Nadel and Jardine as will be demonstrated in the appropriate author chapters.

The Future for Classic Detective Fiction

Plain asserts not only that 'the detective is dead' but also that'[c]rime fiction no longer occupies a stable position in relation to contemporary cultural desires [because] [w]here once it sought to allay the anxieties of its readership, it now seems designed only to satisfy their appetites' (Plain 245). Knight similarly notes that 'in the mid-1980s […] something was changing, violence was being foregrounded' (Knight 198). This is certainly true of the work of writers such as Val McDermid, for example, in *The Mermaids Singing* (1995) and *The Torment of Others* (2004).

However, this thesis would argue that such novels, characterized by the horrific graphic description of the murdered, often mutilated, tortured, and often sexually abused body, should be considered as a separate sub-genre. Such a sub-genre would relate to a pre-Newtonian worldview in displaying strong links with the literary Gothic in its

preoccupation with fear, terror and pain (see Chapter 2). The development of such a sub-genre is contiguous with that of contemporary detective fiction within which the role of the detective is still paramount. This chapter has demonstrated that it is still possible to identify within present-day detective fiction elements of its literary predecessors. However, it has also been demonstrated that the form has changed considerably to accommodate a changing worldview which has gradually, during the twentieth century, became less dominated by the Newtonian scientific paradigm.

Chapter 3

Scientific Paradigms and the Dalziel and Pascoe Novels of Reginald Hill

Reginald Hill's first novel featuring Andrew Dalziel and his side-kick Peter Pascoe, *The Clubbable Woman*, was written in 1970. There are currently twenty-four books in the series. The latest, *Midnight Fugue*, was published in 2009. A full-time author since 1980, Hill has written books in many genres, from historical novels to science fiction.

One reason for considering Hill's work important to this study was the high quality of the writing and the scope of their influence. The novels have been adapted into a television series for the BBC extending this. Hill's work is not only held in high esteem by its readership, but also by other crime writers. *Bones and Silence* (1990) won the Crime Writers' Association's prestigious Gold Dagger Award for Best Crime Novel of the Year. In 1995, Hill was awarded the Cartier Diamond Dagger by the Crime Writers' Association for his life-long contribution to crime writing.

Further, the novels of Hill adopt the 'middle-ground' in their attitude to, and representation of, scientific paradigms in relation to the detective fiction of Barbara Nadel and Quintin Jardine. The Inspector İkmen novels of Nadel emphasize the importance of the psychic area of human experience, of magic, the occult and of myth as an opposing but balancing force to the ever-increasing scientific, empirical, and materialistic Newtonian worldview. The work of Jardine generally offers a worldview that has little room for the psychic, for myth or for legend, and yet still acknowledges that a scientific, empirical materialistic worldview does not provide all the answers. The work of both these authors is considered in more detail in the relevant author chapters. In contrast, Hill's work demonstrates the importance of combining all areas of human experience in the search for the truth.

The main aim of this chapter is to identify aspects of the Aristotelian, Newtonian and holistic scientific paradigms which are particularly pertinent to Hill's Dalziel and Pascoe novels. Further, the chapter will examine how Hill's work might facilitate the paradigm shift from the dominant Newtonian worldview to a more holistic

understanding of the universe. Concentrating on novels written since 1980, this chapter will first offer a general introduction to the role of these three paradigms in Hill's work and continue with a detailed analysis of three novels in particular: *A Killing Kindness* (1980), *Bones and Silence* (1990) and *Good Morning, Midnight* (2004). The reasons behind the choice of these three novels will be discussed in the sections of this chapter relating to each of the novels.

The Aristotelian, Newtonian and Holistic Scientific Paradigms and Hill's Detective Fiction

A detailed explanation of the Aristotelian, Newtonian and holistic scientific paradigms has been given in Chapter 1. Therefore, only a brief description of the paradigms' main relevant precepts will be given here. The following section will concentrate only on aspects of these paradigms considered most pertinent to the novels under consideration.

Hill's work shows a particular interest in the nature of time, motion and change, especially their fluidity and the interaction of past and present. As discussed in Chapter 1, within the Aristotelian scientific paradigm time, motion and change are closely linked. Time is the rate of change: change requires movement from one state to another. Aristotle recognized that motion could occur in a straight line, a circle or a spiral.

Within the Newtonian worldview, however, motion could only occur in a straight line. All motion obeyed a small set of laws of which Newton's Laws of Motion and Gravitation form the basis (see Chapter 1). Change is an important element of these laws, but applies only to quantity, not, as in the Aristotelian worldview, to quality. For example, acceleration is defined as the rate of change of velocity: velocity equals the rate of change of position with time. Newton defended the view that time was related to a unique, non-material reference frame and was not defined by physical processes: time was absolute (Bynum 368). Within the Newtonian worldview time is reversible.

Within the holistic paradigm, movement is multidirectional and, in complex systems, not reversible (see Chapter 1). Space, time and mass as absolute quantities: they are all relative to the observer (Bynum 371). Change, measurable exactly within the Newtonian paradigm, is far more fluid within the complex adaptive systems of the holistic paradigm. Closely related to this fluidity is the privileging of process over

events, for instance in *Bones and Silence*, where Peter and Ellie's marriage is seen as a process.

Within the complexity science of the holistic worldview small changes can be easily accommodated, but frequent successive small changes build up to a critical point, at which they can no longer be contained. An 'avalanche of changes' results until stability reestablishes itself (Waldrop 309). Such an avalanche of changes is exemplified by Pascoe's intermittent discoveries, in *The Wood Beyond* (1996), about his great-grandfather's role in the Great War. Initially considered by Pascoe as one of the heroic fallen, he has to continually adapt his view as, throughout the novel, details of his great grandfather's military service gradually unfold. Eventually, Pascoe has to completely reassess his view of his own personal world. He is not descended from a hero. His great-grandfather, however unfairly, was executed for cowardice.

N. Katherine Hayles has discussed how the difficulty of presenting 'a holistic field […] within a linear flow of words' is addressed in Pynchon's (b.1937) *Gravity's Rainbow*(1973) (27). The method employed by Hill to deal with this problem frequently involves switching between different forms of narrative and time zones. In *Pictures of Perfection* (1994), for example, the two reports of the apparent massacre are separated by the back-story to these events which imbues them with a completely new meaning.

Each of the five volumes has a Prologue from: the *History of Enscombe Parish* (Volume the first); the *Journal of Frances Guillemard* (Volume the second); the *Journal of Ralph Digweed. Esq.* (Volume the third); the *Journal of Frances Harding (nee Guillemard)* (Volume the fourth) and the *History of Enscombe Parish* (Volume the fifth) all written long before the date of the events told by the novel. The repetition of the sources of these prologues forms an arch through which present-day events may be viewed. As all the extracts are historical, they literally set the story within a historical framework whilst illustrating the degree to which present events are determined by those of the past. The interspersing of contemporary events with historical prologues also illustrates the holistic paradigm's notion that the present does not simply supersede the past. As Martha M. Turner comments: 'the past is a precondition of the present rather than simply an alternative to it' (144).The resurfacing of the past within the present demonstrates the influence of the anti-Newtonian Gothic within Hill's work

forging a link between Hill's detective fiction and its literary past. The link to the Gothic thus helps to establish a continuum between the literary predecessors of detective fiction and modern examples of the genre.

Movement between different time zones often helps structure the plot of Hill's fiction. Notable examples include *Deadheads* (1983), *Underworld* (1988), *Recalled to Life* (1992), *On Beulah Height* (1998) and *Arms and the Woman* (1999). The interaction of past and present prompts the reader, drawn into the mindset of the characters, to also experience the world as one in which different time zones are neither self-contained nor mutually exclusive.

Arms and the Woman is particularly interesting in this context. The narration of the plot is interspersed with excerpts from Ellie Pascoe's attempt at writing a sequel to the ancient Greek poet Homer's *Iliad* and *Odyssey* (c. 8th century BC). Similarly, as the police approach the building within which a possible hostage situation exists, Peter Pascoe felt that: 'whatever his mind told him, his senses and his imagination knew that he was in some land of myths and monsters, light years away from all the certainties and securities of home' (548). Thus the past myths of ancient Greece and the present day drama are intertwined. Time becomes fluid.

The drama reaches its conclusion in the Pavilion, a coastal building under ever-increasing threat of destruction from the sea. It is interesting to note the surfacing here of yet another knowledge stream: that of Darwinian evolutionary theory as it appears in *The Origin of Species* (1859) and *The Descent of Man* (1871). As discussed further in both Chapters 1 and 2, Darwin saw life as originating in the sea, whilst the bones of dead animals form the chalk beneath it. Ellie and her friends and enemies are themselves threatened with returning to the sea as the cliff below the Pavilion is finally eroded away. The significance of the sea to birth and death in both myth and evolutionary theory frequently forms an element of the plot of the Sherlock Holmes stories, notably 'The Five Orange Pips' (1891) discussed in Chapter 2. The theme thus provides another link between Hill's work, its literary past and with the evolutionary science of Darwin.

A further example of the interaction of past and present is found in *On Beulah Height.* As a young girl vanishes from the village of Danby, *On Beulah Height* actually opens

with the unsolved disappearance of three young girls fifteen years earlier. This immediately suggests not only a revisiting of the past by the present, but that these two time zones can exist, in the minds of the characters at least, simultaneously.

Unsurprisingly, those involved in the previous investigation fear the outcome will be the same. For them, time has progressed in a similar manner to that represented by Stephen Hawking's thermodynamic arrow through which disorder increases with time (Hawking 159). This is discussed in greater detail in Chapter 1. As time passes, with no satisfactory closure seeming likely, the disorder wrought by the past disappearance of the three girls also increases, leading to more deaths. The present-day events occur as a direct result of the previous girls' disappearance.

Moreover, as well as relating to the holistic paradigm by illustrating Hawking's work, Hill's treatment of time also illustrates Hayles's assertion that '[a]s the patterns [formed by the repetition of past events] accumulate in memory, more and more of the present is organized in those terms' (120). The 'extended dominance of the past' thus results in the 'over-determination' of the present by past events, building up an expectation in both the minds of the detective and the reader that the past will continue to repeat itself (121).

The acceptance and normalizing of altered psychological states (such as trance) and supernatural knowledge in Hill's work undermines the Newtonian paradigm by giving credence to types of experience lying outside its realm of influence. The privileging of such states within the Gothic form has been discussed in Chapter 2. Examples include Rosie's experiences in a coma and her relationship with the nix in *On Beulah Height*, Hat Bowler's recurring nightmare in *Good Morning, Midnight*, and the extensive narration of Dalziel's near-death experiences in *The Death of Dalziel* (2007). By introducing such Gothic elements within a contemporary setting, elements which are unacceptable within the dominant Newtonian paradigm, Hill could be suggesting how strands of such knowledge systems form an important, if scientifically unexplainable, part of the twenty-first century world. This is discussed in more detail with reference to *A Killing Kindness* and *Bones and Silence* later on in this chapter.

Knowledge forms in which Hill's work demonstrates an interest include the psychic knowledge of the Romany people, linguistics and the pseudosciences of astronomy, palmistry and psychiatry which are discussed in greater detail with reference to *A Killing Kindness.* Within the Newtonian paradigm the only truly useful knowledge is that which has an empirical base. Hill's interest in forms of knowledge marginalized by the Newtonian paradigm suggests a widening out of our understanding of what constitutes useful knowledge.

However, Hill's work does not favour a return to the ideals of the Aristotelian paradigm. For example, in *Nicomachean Ethics* (c. 350 BC) Aristotle discusses the nature of human happiness, describing happiness as 'a kind of working of the soul in the way of perfect Excellence' (*Ethics* 17). Happiness also 'belongs to the class of things precious and final' linking it to the Aristotelian privileging of stasis over motion (*Ethics* 17). In *Pictures of Perfection* (1994) Halavant warns Caddy that perfection (which according to the Encyclopaedia Britannica online is synonymous with excellence), is 'in human terms a form of stasis, the inevitable precursor of decay' (369). Halavant and Constable Bendish fear the stifling effect of Aristotelian stasis and settlement. Bendish joined the police force in order to help move society towards perfection only to realize that 'in a perfect world we wouldn't need the police, so there was no way [he] could work towards that perfection while [he] was actually part of one of the main symbols of imperfection'(389). Bendish's stasis resulted in his becoming very depressed by his powerlessness, his inability to change things for the better.

> [Bendish] was going nowhere, nothing was happening and that's when you start wondering if maybe the reason there's so much crap in the world is that that's the natural state of things, and if you probe too far beneath the surface, you'll find it bubbling around down there, the old unchangeable primaeval crap we all came from and we're all going back to. (389)

Hill's Dalziel and Pascoe novels also undermine the Newtonian paradigm by the low regard in which they generally hold the Baconian scientific method and forensic science and technology. Dalziel's 'casual contempt for science' is noted in *A Clubbable Woman* (1970). Newtonian scientific knowledge alone is usually depicted as unreliable and inconclusive. For example, in *Deadheads* (1983) Richard Elgood thinks that his recent brushes with death were actually attempts at murder. However, while the police technical team can identify why his desk lamp gave him a substantial electric shock and

his garage doors failed crushing his car, they cannot say if these faults were caused deliberately (90). The pure scientific Newtonian facts are virtually useless in this instance as they give no evidence either for or against foul play. Again, the post-mortem results in *Recalled to Life* (1992), while able to identify the cause of Miss Marsh's death as heart failure, cannot determine whether or not this was through human agency. Similarly, Dalziel's comment in *Dialogues of the Dead* (2001): '[e]xperts […] I've shat 'em. It's blood, sweat and good honest grind that'll catch this bugger' (131) demonstrates his lack of faith in the forensic science services as neither the pathologist nor the forensic dentist can provide any useful information regarding the death of Jax Ripley.

As discussed in Chapter 1, within the Newtonian worldview, the universe was comprised of discrete unchanging objects in an empty space. The Newtonian paradigm thus favoured division and separation through the imposition of boundaries. Hill's work examines possible outcomes of maintaining or breaching these boundaries. For example, in *A Cure for all Diseases* (2008), Pascoe inadvisedly allows Dalziel, on sick-leave, to intervene in his investigation. The narrator tells the reader that: 'Pascoe should have drawn a line and said, *From now on in, don't cross it'* (375). On the other hand, the strained relationship between Dr Gentry, the Head of the Forensic Laboratory, and Dalziel increases (or perhaps represents) the division between scientific facts and their reasons. As Gentry states in *The Wood Beyond* (1996): '[e]ductions are your department, Superintendent […] I merely present the facts' (196). Other instances of the breaching of boundaries, especially between inside and outside and the position of the external, objective observer are discussed in more detail further on in the chapter.

As noted in Chapter 1, complexity science associated with the holistic paradigm recognises biological systems as complex, adaptive and open. *S*ystems associated with the Newtonian paradigm, such as mathematics, are closed. The frequent lack of satisfactory closure in Hill's novels, for example in *On Beulah Height* and *Deadheads,* demonstrates the holistic paradigm's concept of openness. This is discussed in greater detail with reference to *A Killing Kindness* and *Good Morning, Midnight,* later in the chapter.

Already discussed in Chapter 1, one far-reaching implication of the work of both Einstein and Heisenburg is that facts are not as concrete as previously supposed. The

plot of *Pictures of Perfection* (1994) demonstrates Turner's point that 'we still often act as though facts are found rather than constructed' (6). The first chapter opens with a scene which apparently describes the massacre of the inhabitants of Enscombe on the Day of Reckoning by a lone gunman. The rest of the novel presents the back story to this event which leads the reader to a completely different interpretation of the initial scene. Originally the day on which the tenants paid their rent to the landlord, the Day of Reckoning is now a day of celebration, not of judgement. The apparent massacre was in fact the action of a drunken youth with a paint-ball gun using pig's blood as ammunition. Facts are not Newtonian discrete objects. One's interpretation of apparent 'facts' depends on one's initial viewpoint.

***A Killing Kindness* (1980)**

A Killing Kindness was chosen for detailed study because, firstly, of the credence it attaches to what might be termed 'antiscientific' forms of knowledge, such as the psychic powers and knowledge of the Romany people. Arguably, *A Killing Kindness* privileges psychic knowledge over Newtonian inspired scientific knowledge. Secondly, the novel is important for its interrogation of the boundaries between Newtonian inspired 'mainstream accepted' science and that which is marginalized as 'pseudo science': psychiatry, astrology and palmistry. Thirdly, *A Killing Kindness* presents, through the gypsy's belief in fate and cosmic justice, a teleological Aristotelian world where all will come right in the end without man's agency. Finally, *A Killing Kindness* investigates the Aristotelian privileging of stasis over movement.

The Plot of *A Killing Kindness* and Scientific Paradigms

A Killing Kindness opens with the séance at which the medium, Mrs. Rosetta Stanhope is trying to contact the murdered Brenda Sorby to try to establish who killed her. In Brenda's voice, Rosetta states that '"… it was green, all green, all over me, choking"' (1). These words, although misinterpreted at the time, are recognized at the end of the novel as giving the name of the killer. Sergeant Wield, who had gone to question Mrs. Winifred Sorby about her daughter's death, is pressed into staying to the séance, and manages to tape record it secretly. This demonstration of psychic ability, coming as it does at the opening of the novel, is of paramount importance as it demonstrates the value of knowledge systems which cannot be verified by Newtonian inspired science. It

harks back to a pre-Newtonian world where knowledge was all one, not divided and restrained within the man-made barriers of different disciplines, nor branded as reliable or unreliable according to whether or not it could be verified by science.

It is perhaps worth noting here the likelihood that the sergeant's name 'Wield' is a reference to Charles Dickens's use of the name as the Inspector Wield who appears in such of Dickens's stories as 'The Detective Police' (1861). This presents an example of Hill linking his work with its literary past. It also adds a certain authenticity to the story as Dickens's Inspector Wield was based on the real-life Inspector Field whom Dickens spent some time trailing in the execution of his duty for research purposes.

Brenda is the third victim of the murderer whom the local paper has dubbed the 'Choker'. That the novel opens with the third murder, rather than the first, questions the Newtonian concept of time moving only forward. The first victim was a Mary Dinwoodie, the second, ten days later, June McCarthy. All the victims were laid out neatly except for Brenda, whose body was found when it collided with a barge in the river. It is the time of the city's High Fair. The gypsies associated with the fair have set up camp near the local airfield, where the Aero Flying Club is based. The Choker murders continue. Pauline Stanhope, Mrs. Stanhope's niece, is found strangled in the fortune- telling tent at the fairground by Sergeant Wield.

The next victim, Andrea Valentine, is found in her own home. A teenage pupil of Mark Wildgoose, she has been having a relationship with him. Wildgoose and Andrea had been seen at the Aero Club on the night of her death, she sporting what she boasted was an engagement ring. Three of the victims were young girls who were recently engaged. The narrative states that 'It was the story as before' (297), illustrating the Aristotelian cyclic nature of events. Both this and the starting of the narrative with the third murder (not the first) are examples of a fluidity of time associated with the holistic paradigm as will be discussed later. Suspicion of Wildgoose increases until he also is found murdered.

The strangulations are accompanied by phone calls quoting Shakespeare's play *Hamlet* to Sammy Locke, of the local *Evening Post,* who thinks that they are not all the voice of the same person. Dr Pottle of the Central Hospital Psychiatric Unit is called in to help

draw up a profile of the killer. Linguists Drew Urquhart and Dicky Gladmann from the local college take the tapes to analyse the voice pattern.

Dalziel is convinced that the gypsy Dave Lee, a distant relative of Pauline Stanhope, is 'mixed up in it somewhere [because] there's too many close connections for coincidence' (220), although Pascoe is equally certain that he is not. This 'interconnectedness' is a defining feature of the holistic paradigm (Hayles 9). Dalziel is partly correct, but Lee is not the murderer. Whilst searching Lee's caravan, Dalziel finds a watch, ring and money concealed in a jar of flour. Lee says that his children had found Brenda's dead body in the water. Lee had tried to resuscitate her. When he realized that it was useless, the gypsies moved her body so that they would not be incriminated in her murder. Lee removed the watch, ring and money from her bag.

Dalziel orders Pascoe to carry out a search of the gypsy site. Finding Pascoe on the river bank talking to the young gypsy children, Mrs. Lee calls him a pervert and shoves him into the water. Struggling to reach safety he realizes that he is experiencing the same scene related by the dead Brenda during the séance which opens the novel. He also realizes that the medium's words relating to how Brenda died may also be correct and wonders 'how an English judge would react to the production of a dead witness by proxy in a murder trial' (270). Pascoe realizes that the legal system with its hard and fast laws is Newtonian based, and therefore a judge, the arbiter of the law, would not accept as evidence anything from outside the Newtonian paradigm within which the law functions. This clash between the Newtonian-inspired legal system with its fixed laws and the intuition-inspired more holistic mindset of the detective also causes problems for Dalziel in *Good Morning, Midnight* and *Bones and Silence*.

Thomas S. Kuhn suggests that 'something like a paradigm is prerequisite to perception itself' (Kuhn 132), because the prevailing worldview is responsible in no small part for how one interprets one's experiences. Pascoe's traumatic, near-death experience as he comes close to drowning causes a paradigm shift in the way he thinks. As Hayles points out:

> [t]he angle from which we view the universe is only one among many, no more (or less) valid than any other. (49)

Further:

> [N]o matter which viewpoint is chosen, there will always be aspects of reality that can only be understood from another, mutually exclusive viewpoint. (53)

In a box of keepsakes found in Mrs. Dinwoodie's home is a music festival programme from the town of Linden in Germany. Following up this German connection, Pascoe discovers that Peter Dinwoodie had run off with Mary Greenall while stationed there with the RAF. Mary Dinwoodie was in fact first Austin Greenall's wife. Through his constant movement, Greenall can be seen as the personification of Newtonian constant motion, the effects of which will be discussed in more detail later. Pascoe confronts Austin Greenall at the Aero Club. Greenall admits the killings and relates the details to Pascoe, who writes it down as a statement. As Greenall nears the completion of his statement, Pascoe is called away leaving Wield to get the statement signed, which he fails to do.

Greenall is charged with just the murder of Mary Dinwoodie/Greenall, as the police feel that they have most likelihood of a conviction here. But the evidence is all circumstantial and Greenall is acquitted. Greenall's unsigned confession is inadmissible as evidence. Pascoe apologizes to Rosetta Stanhope for the trial '"all being for nothing" (361). But Rosetta sees the outcome differently, urging Pascoe: '"Don't worry. That [the avenging of Pauline's murder] will all be alright too. I feel it. It will be as Pauline would have wanted it"' (362).

Upon his acquittal Greenall heads straight for the Aero Club for 'a little flight. Just to clear the mind, stretch the muscles' (365), despite being warned of the lateness of the hour. As he comes into land he sees images of a herd of gypsy ponies (in reality long gone) obstructing his landing. He crashes and is killed. At the end of the novel Pascoe and Dalziel muse over whether the Great British public will see his death as suicide through guilt or as the result of police harassment of an innocent man.

A Killing Kindness and Different Kinds of Knowledge

A Killing Kindness demonstrates that knowledge does not have to be justifiable through science to be valuable, naming the killer as it does, at a séance, in the very first sentence. In the Newtonian world, science is the dominant method of verifying the truth. The psychic power of the 'self-professed clairvoyant and medium' Rosetta

Stanhope (3) is not a scientifically accepted fact and yet it provides the killer's name. Dalziel may call Rosetta's psychic power '"crap"' (8), but had her words spoken through Rosetta's mediumship been understood correctly as saying '"*It was Greenall, Greenall over me choking…"'* (330) at the beginning of the investigation the killer would have been apprehended before the other murders were committed. The disastrous result of Brenda's words being misunderstood indicates the importance of a correct understanding of what might constitute evidence.

Brenda's words were not taken seriously as evidence as they were spoken from beyond the grave, and anyway would not constitute evidence in a court of law as Pascoe realized when he fell in the river at the gypsy camp (as discussed earlier). This scenario also demonstrates the importance of keeping an open mind as to what constitutes useful evidence. An open mind, working along the lines of the holistic paradigm, will entertain the possibility that experiences other than those verifiable through Newtonian science, might present useful information.

Varieties of Constructing Knowledge

The Austrian-born British philosopher of natural and social science Karl Raimund Popper (1902 – 1994) believed that the objective of science is objective truth. For a theory or hypothesis to be truly scientific it must be possible to prove that it is false as well as to prove that it is true. According to Popper, fields of study such as astrology and psychiatry are therefore pseudosciences because it is not possible to prove their assertions to be false. This is known as the Falsification Principle (Encyclopaedia Britannica Online 08/04/2010).

In *A Killing Kindness* the division between true Newtonian science and such pseudosciences becomes blurred. True Newtonian science, favouring data as it does, has little to offer here, but the Newtonian-inspired reasoning skills of the psychiatrist Dr Pottle produce the correct answers. The linguists Drew Urquhart and Dicky Gladmann obviously consider their discipline as a science which should be granted the respect it deserves, but the conclusions they draw are wrong, perhaps demonstrating that scientific truths can only arise when reasoning from an empirical base.

Rosetta and Pauline Stanhope discuss how the casting of horoscopes and palmistry, usually considered as far removed from science, are '"pretty scientific"' (39). The effect

of trying to demonstrate the links between the overtly scientific and other forms of knowledge is three-fold. Firstly, it serves to raise the status of non-empirical knowledge systems by establishing their close association with Newtonian science. Secondly, it serves to re-introduce non-empirical knowledge forms within the current basically Newtonian worldview. Within the Aristotelian paradigm all forms of knowledge were viewed as equally valuable, as shown in Chapter 1. Different knowledge systems each had something to offer to extend human understanding of the universe. Thirdly therefore, in line with the inclusiveness championed by the holistic paradigm, it seeks to recombine different knowledge systems, allowing a more-rounded, more complete picture of the world and the way it functions.

Aspects of the Dominant Newtonian Paradigm: Newtonian Inspired Forensic Science

True Newtonian science has little place in *A Killing Kindness.* The pathologist can only say that Brenda Sorby had been dead for between twelve and twenty hours, too big a time span to be of much help to the investigation. Pascoe, 'long used to the imprecisions of science had looked for other evidence of timing [of her murder]' (19) such as sightings of the girl prior to her death.

Forensic tests on the ring, watch and money found in Lee's caravan also offer the detecting team little assistance. The evidence only shows that the money had been totally immersed in water, but is unable to link the watch and ring to Brenda Sorby. By the time the results of the forensic tests are known, Pascoe has realized that the money came from Brenda's handbag, which went with her into the river and so only verifies that which is already known.

Voice Pattern Analysis

As detailed in Chapter 1, scientific equipment and technology are the products of a Newtonian worldview. The work of the two 'linguists' (142), Drew Urquhart and Dicky Gladmann requires the use of highly sophisticated state-of-the-art scientific equipment in the form of the sonograph. As with the Stanhope's attempt to raise the status of horoscopes and palmistry discussed above, this raises the status of linguistics and reinforces the impression that linguistics is a scientific discipline. That this equipment being only available at such a highly respected, academic institution as the University, (not even at the college), enhances this perception. The tapes have to be examined outside the police headquarters because the equipment at police HQ is 'hardly space-

age' (143). This distancing of the work of a scientific discipline from both police HQ and the forensic laboratories illustrates the marginalisation of science in detective work, the result of its enclosure within the confines of a Newtonian barrier.

Analysing the voice patterns on the four tape recordings is an illustration of the Newtonian paradigm's concept that the whole can be understood by an analysis of its parts. Here again, though, Newtonian science falls short. Analysing the frequency of different elements of a voice and having them displayed on a graph reveals nothing of the intentions of the speaker, nor of the actual meaning of the words. The results produced by this highly scientific and mechanistic apparatus could have been disastrous to the investigation as the results it produces further convince Urquhart and Gladmann that there are four different speakers. These results are erroneous: they are the recording of the voice of one man only. Neither science, nor detective work proves this. It is in the full confession of the murderer Greenall.

Marginalised Forms of Knowledge: Astronomy and Palmistry

In *A Killing Kindness* the legendary psychic skills of the Romany people are portrayed as a type of pseudo-science: being far less removed from science, and more objective, than one might imagine. The Newtonian boundaries between hard science and pseudoscience become blurred, harking back to a pre-Newtonian Aristotelian age when all knowledge was one. Mrs. Stanhope says of palmistry that '"It's a craft. You learn it"' (59). Pauline Stanhope is not Romany and therefore has no psychic 'gift' as her Romany aunt does. She tells Pascoe '"I'm a fully qualified horoscopist and a pretty fair palmist but I've got no real psychic powers"' (37). Pauline '"got [...] properly qualified"' in them (39). So she can act as a convincing palmist and reader of horoscopes with her practical, objective, near scientific knowledge. However, she lacks the '"real psychic powers […] the real gift"' (37) which her aunt, '"a true psychic"' (38), possesses and which is to prove so important in all aspects of this case.

Psychiatry

Although Dalziel refers to Dr Pottle of the Central Hospital Psychiatric Unit as '"that quack"' (125) Dalziel, felt, however, that the detective team would '"be daft not to use any expert help we can get"' (117) and so requests his assistance. Dalziel's considering Pottle as a quack suggests that he does not regard Pottle as a true scientist, or psychiatry as a real science. On the other hand, Dalziel's wishing to seek his advice in spite of this

suggests that he also appreciates the potential usefulness of forms of knowledge other than the purely scientific. One of Pottle's strengths is that he can employ Newtonian science and yet see its results from a wider, holistic angle as best suits the circumstances.

Belying Dalziel's claims of quackery, Pottle is actually a true Newtonian scientist, at least in the way that he investigates and assesses the four tape-recorded quotations from Hamlet. He has to make two basic assumptions before he can proceed: that the four murders were committed by the same killer; and that this killer had the same motive in each case. These form the two premises which underpin his profiling of the murderer. However, as Aristotle points out: 'the premisses of demonstrated knowledge must be true, primary, [and] immediate' (*Posterior Analytics* 1.2). Pottle is worried that his basic premises may not be true, because if they are not, neither will be his profile of the killer. Within the Aristotelian paradigm, 'it will be intuition which apprehends the primary presisses' (*Posterior Analytics* 2.19). Therefore, according to the Aristotelian paradigm, Pottle must learn to trust his own instincts. However, the influence of the Newtonian paradigm which does not trust intuition is reducing Pottle's faith in his own gut instincts. Pottle is a psychiatrist. For him, a disadvantage of his discipline becoming more scientific, more Newtonian, is that his Aristotelian belief in the truth of intuition is weakened.

Pottle's Newtonian science aims to be objective and dispassionate. This is illustrated by Pottle's desire for more tapes. He feels that '"the more I have the better results I can hope for"' (144) even though this would mean there had been more killings. Perhaps this is an illustration of Wendy Wheeler's observation that 'scientists are not interested in the world, but in data' (74). Pottle is only interested in the tapes, not in the characters or the world of *A Killing Kindness*. In this aspect of his work, Pottle operates only within the closely confined barriers of his discipline. Similarly to Gentry in *Good Morning, Midnight,* Pottle too can 'offer no conclusions' (147).

Pottle's success, however, is dependent on both Newtonian scientific evidence and Aristotelian intuition, combined in holistic interrelatedness. It is the influence of Aristotelian intuition which brings Pottle to an accurate qualitative assessment of the personality of the killer. As Pascoe notes during Greenall's confession 'Pottle had been

right' in that Greenall only felt guilt when he had killed to protect himself (349). Pottle is also correct in identifying marriage as the key to the case. Pottle's profile of the killer is also very accurate, if limited. He thinks that the culprit is male, older than thirty-five and murders out of compassion, all of which could accurately describe Greenall.

The Positive Outlook of a Teleological Aristotelian World

The teleological world is a feature of the Aristotelian paradigm, in which 'all terrestrial change presumes a completely immaterial unmoved mover, pure form or God, whose self-thinking sustains the universe' (Bynum 27). Although the Christian God is never mentioned in *A Killing Kindness*, both Greenall and Rosetta Stanhope believe in fate, predetermination, and a sense of purpose working within the universe. Greenall, for example, 'felt that he was merely an instrument of some benevolent and protective force' (350). This view he could justify to himself through the ease with which his victims seemed to present themselves to him and the luck by which he escaped apprehension for so long. He '"had a feeling that there was a plan. But it wasn't mine"' (346). Referring to the murder of June McCarthy, while Greenall here says that there was '"No plan"', he still thinks that '"It was fate"' that she should be murdered (345). Although Greenall's belief that there is a purpose working in the world is Aristotelian-inspired, it is at odds with his distinctly Newtonian view of himself as a tool.

After Greenall has been acquitted, Pascoe apologizes to Rosetta Stanhope for her daughter's killer remaining unpunished. Rosetta, however, does not believe this to be the case. Her mood is positive. Rosetta tells Pascoe that '"It's going to be alright"', it will be '"taken care of" ' (363), '"[i]t will be as Pauline would have wanted it"' (362). Rosetta feels that justice will finally be done, if by other agencies than through a Newtonian court of law. Her belief proves correct when Greenall crashes his plane as the result of 'seeing' non-existent gypsy ponies on the runway.

Privileging Aristotelian Stasis Over Newtonian Motion

In the Aristotelian world objects continue to move until they are as near to their natural resting place as circumstances allow (Bynum 25, Turner 45). Every object has its own realm to which it is best suited. Three of the victims, Brenda Sorby, June McCarthy and Andrea Valentine, were young girls who were recently engaged to be married and so were nearing settlement in their Aristotelian 'natural place' as married women. This

settlement Turner notes with respect to Elizabeth and Jane in Jane Austin's *Pride and Prejudice* (Turner 47). Greenall does not support the Aristotelian view that objects possess innate differences. Rather he subscribes to the Newtonian worldview of constant change. In his own personal experience, Greenall has not found the early settlement resulting from young marriage to be a good thing. Mary and Greenall married young because Mary was pregnant. But finding marriage unfulfilling, Greenall tells how '"Mary got restless […] she wanted to work again"', that is, wanted to resume her life in a Newtonian world of constant motion (332).

Greenall's world is ruled by this Newtonian constant motion. Stationed in the RAF, he was 'moving around all the time' as a result of numerous postings. Mary wanted to teach again but had to give up work twice as a result Greenall being moved. When Greenall was away on exercises Mary left him, returning to England with their daughter Alison. Greenall describes his subsequent decline in terms of Newtonian motion: '"things went in to a spin"' when he overstayed his leave in England trying to find his wife and daughter. It was the beginning of a '"long, downhill slide"' although '"there were plunges and recoveries"' (335). Obsessed with motion, Greenall kept fit by walking and jogging, but above all he was passionate about flying. The worst aspect of the end of his RAF career was that there was '"no flying. I had to get that back to start with"' (337).

Above all, it is this obsession with constant motion which causes him to commit murder. He could not bear to see Brenda Sorby, June McCarthy and Andrea Valentine heading towards the Aristotelian settlement he saw as stifling their young lives. Therefore, as Pottle noted, he kills them out of compassion, to save them, literally, from a fate worse than death. As discussed in Chapter 1, the Newtonian world is atomistic, consisting of separate discrete particles. Greenall perhaps fears that his victims will loose their individual discrete status by being united with their husbands in marriage. The Newtonian atom is a discrete, cold solid object resembling a billiard ball. A world built of these solid, unyielding particles might itself be solid and unyielding. Greenall, seeing marriage as the end of their separate individualities for his victims, preempts this by killing them or, as he sees it, saving them from '"Disappointment. Disillusionment. Dismay"' (346). He does not appreciate that in taking their lives he is responsible for turning them into the dead matter of the Newtonian world.

But his actions are reciprocated. Newton's First Law of Motion states that '[e]very object in a state of uniform motion tends to remain in that state of motion unless an external force is applied to it': his Third Law states that 'for every action there is an equal and opposite reaction' (see Chapter 1). As Greenall ended his victims' motion or progress through life, so his own forward motion is ended when his plane crashes. This is not brought about by the action of any human agency, but through Greenall's vision of gypsy ponies blocking the runway. His death obeys the Newtonian law he inflicted upon his victims. Similarly, Newtonian motion is detrimental to the wellbeing of other characters: Greenall's daughter and her husband are killed in a road accident; Peter Dinwoodie is killed by a moving traction engine.

The portrayal of time and motion in *A Killing Kindness* does not always conform to the requirement of a mechanistic Newtonian world: that motion is 'in a constant line' (Turner 45). The concept of time here is altogether more fluid: time does not always move in a forward direction. For example, the novel starts, as previously noted, with the third of the 'Choker' murders, not the first. The initial timings of the murders of both Brenda Sorby and of Pauline Stanhope are incorrect, creating difficulties with regard to the last known sightings of the victims and the alibis of the suspects. Ellie Pascoe considers the possibility that '"when you die, time shifts"' (27).

Towards the New Holistic Paradigm

A Killing Kindness seems generally to support the Aristotelian worldview. This is especially noticeable in its portrayal of a teleological world, its privileging of stasis over motion and the importance it attaches to forms of knowledge marginalized within the dominant Newtonian worldview. However, some aspects of *A Killing Kindness* show a world moving towards a more holistic worldview. The breakdown of the barriers between different knowledge systems is as much a feature of the holistic paradigm as of the Aristotelian worldview. It is a feature of the Aristotelian world in that the Aristotelian paradigm was dominant at a time before man-made barriers between different knowledge systems had been instigated: of the holistic world which seeks to remove these barriers and recombine different knowledge systems.

A Killing Kindness also demonstrates, through the character of Greenall, the need for individuals to be able to live within the social structure of the age whilst exhibiting

holistic adaptation change. They must demonstrate holistic interconnectedness with their social environment. Greenall's determination that characters maintain their Newtonian separation from their social environment and that they retain their nature as discrete particles results only in death.

Another feature of the holistic paradigm apparent in *A Killing Kindness* is the idea of non-linearity – that a response may be disproportionate to the stimulus producing it. This is exemplified by Greenall's response to seeing the girls' engagement rings. His disproportionate response is to murder them.

The complex adaptive systems which form part of the holistic paradigm are open-ended (see Chapter 1). For literature, this can manifest itself in a lack of satisfactory closure. This is also a feature of *Bones and Silence* and *Good Morning, Midnight*, where neither the reader nor the detective team is left with a satisfactory conclusion to the case. At the end of *A Killing Kindness,* Dalziel asks Pascoe what he thinks about Greenall's death. Pascoe can only reply: '"I think it's mysterious and sad … that's it. A sorrow and a mystery. Like life'" (372). This lack of satisfactory closure will be discussed in more detail later.

A Killing Kindness presents an interrogation of how surviving elements of the Aristotelian paradigm might affect our world today. Further, it demonstrates how these elements are not just relics of a past paradigm from a bygone age but form an integral part of the new holistic paradigm. In *A Killing Kindness*, not only do 'other worldviews [than the purely scientific] remain available' (Turner 7), but they often appear to be equally, if not more, reliable than a worldview which privileges science over all other forms of knowledge. *A Killing Kindness* presents a world in which, as Turner notes referring to *Pride and Prejudice,* 'strange things happen', a world where the pre-Newtonian and the post-Newtonian meet (Turner 51). This integration of the older forms of knowledge into the modern world is shown as beneficial.

As Wheeler points out, science has in the past been too anxious to separate conceptual knowledge and the power of the intellect from experiental knowledge. Galileo and Descartes 'reduced the world to a mere object of technical and mathematical investigation' (Wheeler 49). Wheeler goes on to point out that 'the *traverse* [between experiential knowledge and conceptual knowledge] is the most difficult thing for all of

us, because it involves a movement between what are in our present culture, licit and illicit forms of knowing' (Wheeler 150). By showing the benefits which 'illicit' forms of knowledge have to offer today's society, Hill's work arguably seeks to facilitate the traverse of the gap between provable licit scientific knowledge and other illicit forms of knowledge.

***Bones and Silence* (1990)**

Bones and Silence is of importance to this study because it extends and develops the interrogation of Newtonian boundaries encountered previously in *A Killing Kindness* into different areas of experience. While *A Killing Kindness* examined the effect of Newtonian barriers between dominant and marginalized forms of knowledge, *Bones and Silence* demonstrates the effect of reintroducing Aristotelian elements into the contemporary world in the more concrete form of the Medieval Mystery Plays. *Bones and Silence* also investigates the effect of Newtonian boundaries and divisions on the relationship between different characters and between different aspects of the personalities of individual characters. The title is taken from Virginia Woolf's (1882-1941) *The Waves* (1931), which appropriately investigates the consciousness, both internal and external, of its characters.

Identifying the Influence of Scientific Paradigms on the Plot

The story commences with Dalziel hearing a gunshot through his window, fired from the bedroom of Greg Waterson's house opposite. Rushing from his own house to the scene of a possible crime, he is met with the sight of a naked woman, supposedly Gail Swain, dead on the bed from a gun-shot wound to the face. Waterson, her lover, is crouched against the wall, in an apparent state of shock. Philip Swain, her husband, is holding a gun. At the same time as this investigation gets underway, Dalziel starts to receive anonymous suicide letters from someone his investigative team name 'The Dark Lady'. Dalziel has also agreed to play God in a production of the Mystery Plays to be staged in the town under the direction of Eileen Chung. Through an investigation of the interaction of the different roles and aspects of the personalities of Chung and Dalziel, the book interrogates the holistic paradigm's ideal of wholeness.

Before the case is concluded, Greg Waterson, Tony Appleyard (Swain's son-in law), and Swain's business partner Arnie Stringer, are also dead. The Newtonian-inspired

forensic examination of the bodies and of the scenes associated with their deaths can offer no conclusive evidence to support or refute Dalziel's arguably irrational conviction that Swain is guilty of at least the murder of his wife. Hill questions the Newtonian paradigm's assertion that Baconian scientific method (discussed in Chapter 1) is alone capable of providing irrefutable proof of guilt that will stand up in a court of law. Rather, Hill shows that the crime is best solved when Newtonian boundaries between the discipline of forensic science and the intuition of the detective are dissolved as in a holistic worldview.

The statements of the three 'witnesses' (Dalziel, Swain and Waterson) to the events which occurred in the bedroom of Waterson's house are at variance. Swain's initial statement says that the gun was in Gail Swain's hand, that she was threatening suicide and so Swain grabbed the gun to prevent this. The gun went off. The incident was a 'dreadful accident' (36). Waterson's statement is similar but insists that he, Waterson, 'made a dive' for the gun (42). Dalziel, however, is convinced that he saw the gun through the window in Swain's hand before he heard the shot. Swain later alters his statement, to agree with Waterson's claim that it was Waterson who made a grab for the gun. When the actual body of Gail Swain is found under the new police garages, and the woman who died in Waterson's bedroom is identified as Waterson's girlfriend, Beverley King, Swain again has to alter his statement.

Hampered by a lack of useful forensic evidence and the conflicting witness statements of Dalziel, Waterson and Swain, the investigation comes to a standstill. This stalemate is the result of the Newtonian rigid enforcement of boundaries between Dalziel's theories, arrived at through non-empirical inductive reasoning, and the Newtonian scientific empiricism required to prove guilt in a court of law (noted previously with regard to *A Killing Kindness*). The Chief Constable, Dan Trimble appreciates that for a court of law to operate effectively Newtonian boundaries must be rigidly established: boundaries between truth and lies, fact and fiction and ultimately between guilt and innocence. Trimble asks Dalziel '"perhaps you can separate the fact from the fiction for me, with supportive evidence, of course'" (357). It is lack of 'supportive evidence' which proves to be Dalziel's stumbling block. Dalziel's predicament is little different from that in which Sherlock Holmes found himself in 'The Adventure of the Norwood Builder' (1903). Holmes sums up his dilemma.

> "All my instincts are one way, and all the facts are the other, and I fear that British Juries have not yet attained the pitch of intelligence when they will give the preference to my theories over Lestrade's facts." (Doyle 503)

It appears that little has changed regarding the British jury in this regard during the near- century which separates these two stories.

Bones and Silence questions the wisdom of man's trying to impose boundaries between the irrational and the rational. How, after all, does one decide what is rational and what irrational? The situation here supports the holistic paradigm's position that it is not possible to define absolutes of, say, rationality and irrationality. Rather, it is a matter of relativity. What constitutes the rational and the irrational depends on one's viewpoint, one's original position. Swain's statement 'laid claim to motives of loyalty and friendship' which Dalziel disputes because 'it stands to reason' (357 and 364). Trimble knows that unsubstantiated by the concrete evidence of eye-witnesses, forensic evidence (358, 375, 364) and 'proof' (361), Dalziel's 'reason' counts for nothing in a court of law. But Dalziel's original irrational dislike of Swain and conviction that he is guilty is, at the end of the book, shown to be entirely rational, if not scientifically provable. The strength of Dalziel's powers of reason convinces Trimble that his, Dalziel's, version of events is probably the correct one. He tells Dalziel:

> "[A] very good story it is [Dalziel's] […] and sitting here listening to it, I'm inclined to go along with you, Andy. The trouble is that Philip Swain tells a good story too. And he's going to have psychiatrists and doctors and lawyers and character witnesses to support it. What are we going to have to support yours, Andy?" (367)

Because Pascoe 'wanted you [Dalziel] to be right. Who needs a fallible God?' (378) Pascoe takes another look at the conflicting statements in an attempt to find the proof which Dalziel so badly needs to justify his conviction of Swain's guilt. He recognises two 'projections of Swain – as a loyal friend or as a quick-thinking bastard' (371) and so establishes two positions from which to read the statements. Swain tried to present himself as the first: Dalziel saw him as the second. Pascoe arranges the statements in chronological order and reads them first from the point of view of Swain as a loyal friend and loving husband and then from the point of view of Swain as a 'lying bastard'.

It is when reading the statements assuming that Swain is ‘a lying bastard’ that they make sense.

The key breakthrough in the case results from Pascoe’s breaching of another barrier, that between the world of nature (Ellie’s interest in the preservation of bats) and the Newtonian world of forensic science. The bats hibernating in the barn where the bodies of Appleyard and Gail Swain were, according to one of Swain’s statements, originally hidden, wake from hibernation to urinate. Pascoe realises that the presence and quantity of bat urine on Appleyard’s and Gail Swain’s clothing could provide evidence as to whose body had been longest in the barn. Extending this train of thought, Pascoe asks Gentry to carry out tests for blood on the old farm machinery cleared out from the barn by Swain. The results of these scientific tests supplies the concrete evidence needed to substantiate the case against Swain in a court of law. This is discussed in greater depth in the section of this chapter subtitled ‘Peter and Ellie’s story’.

Unfortunately, though, not all barriers are so easily removed. The barriers which surround, contain and pervade the character of Chung, for example, are not lifted in time to save Eileen Chung from suicide. Realizing too late that she is the Dark Lady of the suicide letters, Pascoe confronts her on the Cathedral tower, as she prepares to jump. He misreads the signs and believes that he has persuaded Chung not to commit suicide. As he turns away from her to make his way back down the tower, she jumps. This will be addressed in more detail in the section of this chapter entitled ‘Eileen Chung’s Story.’

Suicide denies the reader any true sense of closure. For a detective story to provide the reader with a satisfying conclusion the reader needs to understand the motives of the murderer. The motives of a suicide cannot be fully understood. The reader is left feeling sad, puzzled and unfulfilled, as are the characters. Pascoe’s frustration is given full vent in the last words of the novel.

> Raging, Pascoe looked upwards and cried, “Damn you! Damn
> You! Damn you!’
> And did not know if he was addressing Chung, or God, or
> Dalziel, or merely himself. (406)

The structure of the plot utilizes the holistic paradigm's concept of the non-reversibility of time. Incidents are never repeated exactly, but with slight variation to the extent that the repetition almost parodies the original, for example, the two 'discoveries' of Gail Swain's body; Pascoe's attempted reconstruction of the events in Waterson's bedroom and Chung's two appearances on the cathedral tower. Other ways in which the plot is influenced by the holistic paradigm will be discussed later.

Dalziel's Story

Holistic Unification of Personality Traits and Roles

Not only does the character of Dalziel have several aspects, but Dalziel also plays several roles in the novel including: Dalziel the 'witness' to a crime; Dalziel the investigating officer and Dalziel the God in the Mystery Plays. Hill shows how, by recognising these different aspects and using them as best suits his purpose, for example in his relationship with Chung, Dalziel achieves the holistic paradigm's aim of wholeness.

Dalziel does, however, experience difficulty in reconciling his role as a 'witness' to a murder with being the chief investigating officer on the case. As an investigating officer he is 'outside' the incident, but as a witness he is 'inside' it. His being 'outside' reflects the Newtonian paradigm's assertion that complete objectivity is possible, while the difficulties arising from him being simultaneously 'inside' the investigation illustrates the holistic paradigm's position that complete objectivity is not possible. Dalziel deals with this duality by failing to acknowledge his role as a 'witness'. He regards himself as a police officer first and foremost: a police officer who witnessed a crime. To Dalziel, what he saw was fact, not open to the possibility of error inherent in an ordinary person's statement, for '[i]n Dalziel's book of certainties Swain had killed his wife and Dalziel had as good as seen him do it' (217). He uses the accepted objectivity of his role as a police superintendent to add credence to his statement, which is at best doubtful, as it is unsupported by the other witnesses and Dalziel was the worse for drink at the time he witnessed the events. This inability to recognize and consolidate Dalziel's two roles threatened to jeopardize the satisfactory solving of the case. When discussing the statements regarding the violent death of the woman thought to be Gail Swain, Dalziel says that there are two statements, meaning Waterson's and Swain's. Pascoe has to remind him that there are three. Dalziel replies: '"Three? What do you mean – three?

...What other bugger's made a statement that needs looking at?"' Pascoe says: '"Yours, … Sir"' (62).

Dalziel's role as God in the Mystery Plays overlaps with his role as a Detective Superintendent, a further illustration of the holistic paradigm's non-recognition of boundaries. Dalziel is much more at ease as Detective Superintendent, enjoying the kudos this elevated position affords. He expects deference and respect from the officers he commands, but is quite prepared to act as one of a team. He is happy to seek the help of others, such as Pottle the psychiatrist, when he feels out of his depth. Dalziel fits well Chung's description of him as '"a big, fat copper who will put everything right"' (264). Dorothy Horncastle adds: '"Mr Dalziel is ubiquitous, omniscient and immortal. Therefore clearly you [Chung] didn't cast him as God. He *is* God!'" (264). Other characters also blur the distinction between Dalziel's acting God in the Mystery Plays and acting God in the real world of the novel.

Pascoe's wife Ellie says at Chung's reception '"Message from the Almighty. He won't be needing his chariot of fire again tonight"', means that Dalziel won't need a lift home (124). When Ellie sees Dalziel 'distantly', rehearsing the Mystery Plays she finds him 'curiously impressive' because '"he was just himself […] it sounded like he was actually saying it [medieval verse] not reciting it, I mean actually saying it, in his own words."' In reply, Pascoe asks '"Do you think we've been wrong all these years and he really is God?"' (279). And yet Dalziel is very human as well. While Dalziel will not admit to the cause, the first time we meet him in this novel he is being sick into a bucket, as a result of too much alcohol.

As described in Chapter 1, having created the world and set it in motion according to a fixed set of laws, the objective Newtonian God is prepared to sit back and let the world proceed through its course. The Aristotelian God, however, is the essence of all that exists and occurs within the world. Dalziel closely resembles the Aristotelian God in that he appears to exert some immediate degree of control over the events which surround around him. When he and Wield visit Swain 'the yard at Moscow Farm was full of activity', but on recognising Dalziel's car all activity ceases (298). Then '[s]lowly Dalziel raised his hand […] but it seemed to Wield as if the puppet-master had twitched the strings, for the three figures before him instantly returned to life' (298).

Dalziel knows his power. When talking about Chief Constable Trimble, Dalziel comments that '"he may do the Floral Dance but it's me who plays the fiddle"' (349).

Dalziel and Chung – the meeting of the 'immovable object' and the 'irresistible force'

The relationship between Dalziel and Chung exists in three interrelated forms: their personal relationship, the relationship between Dalziel the actor and Chung the director and the relationship between Dalziel the Detective Superintendent and Chung the unknown author of the Dark Lady suicide letters. The last of these is a one-way relationship, in terms of the Newtonian Paradigm, unidirectional. Hill shows that this does not work. Chung wants Dalziel to save her from suicide. According to Dr. Pottle, the psychiatrist, she is '"appealing for discovery and offering [Dalziel] him a challenge, inviting him to play her game"' (130).That Chung is called the 'Dark Lady' arguably relates to Shakespeare's so called Dark Lady Sonnets (numbers 127-152). This is possibly a reference to Chung's dark complexion or the dark side of her personality.

Dalziel does not like what is hidden. As a police officer his job is to expose and reveal the hidden. He is neither interested in playing games, nor in accepting some of the responsibility for her impending death. The Aristotelian God aspect of Dalziel's personality fails when Chung gives him the power of life and death over her. He does not, can not, save her from herself. He is not God. Chung said in her last letter, 'you feel it's [the state of the world] controllable and I know it's out of control' (382). This might apply equally well to Chung's inner world as to the external world she inhabits.

Eileen Chung's Story

The Danger of Newtonian Division

Chung impresses everyone she meets, but in very different ways. For Dalziel 'Chung the creator was very different from Chung the malt whisky drinker, or Chung the last tangoist' (251). Chung has a split personality. She has a dark side recognised both by Pascoe, to whom she is 'the enchantress' and Canon Horncastle, who finds her 'pagan' (135). The true extent of her inner darkness remains hidden, even from the reader. However, she impresses most other characters in a positive manner, as 'exuberant, dramatic, full of life' (46). To the narrator she is 'seventy-six inches of perfectly proportioned beauty' (116). This is the side of Chung's personality which she chooses to present: it is the external, visible face of Chung.

Chung's fate illustrates a negative aspect of the Newtonian Paradigm's imposition of boundaries. The dark, hidden, out-of-control side of Chung's personality functions quite separately from the light, visible, in-control side. In her darkest moment, before committing suicide on the tower, Chung admits to herself and Pascoe that '"there's another *me*"' (413). Further, she refers to herself as '"two or three contradictory things at the same time"' (413). But by then it is too late. It is Chung's inability to reconcile the different aspects of her personality during her lifetime, to bring them out into the open and so learn to live with them, that has sealed her fate. As Pascoe turns back from the trap door on the roof of the tower, he knows that he is alone. All that was left of Chung was:

> [A] new wailing, shrieking noise, haled out of horror and dismay. It rose up the sides of the great cathedral, spiraling towards the sun like the thin piping of a bird, and was absorbed as though it had never been into the vast, empty sky. (416)

It was as if the combining of the two opposing elements of Chung's character had cancelled each other out resulting in her annihilation.

Chung, in the depths of her despair, throws herself down from the highest point in the city. The devils from her dark, hidden inner world which tempt her towards suicide have won. And yet we are not totally sure: Chung is no longer on the tower but her actually hitting the ground is left untold.

Peter and Ellie Pascoe's Story

Discovering the Benefits of Holistic Wholeness over Newtonian Divisions

At the beginning of the novel Peter and Ellie seem to be constantly at odds with one another, misunderstanding each other and each other's motives. *Bones and Silence* examines the effect of divisions and barriers within the relationship of Ellie and Peter Pascoe. Viewed from the standpoint of the Newtonian Paradigm, these divisions and boundaries can be beneficial, providing stability and security. From the viewpoint of the holistic paradigm, however, they can only be divisive, constricting and limiting.

Discussing a previous case in which Pascoe was nearly crippled, Peter and Ellie cannot even agree on their final positions. Peter thinks that they ended up on different sides, but Ellie thinks they were '"on different flanks of the same side, perhaps. But not different

sides"' (29). Peter feels that '"[t]hat's almost worse […] I can't even see you face to face"' (29).

Dalziel, playing the role of the objective Newtonian observer, assessing their situation from the outside, thinks that '"It'll take a miracle"' for them to stay together. Dalziel identifies a paradox in their position. If Peter '"make[s] it all the way to the top […] she won't want him there. [... but] if he doesn't get there, he'll know who to blame"' (125).

Before his injury Peter had 'confided without inhibition or censorship in Ellie' (141). However, they had 'found themselves in public and private opposition and, retrospectively, he found himself identifying a certain perverse satisfaction in having reached a boundary' (141). The Newtonian paradigm's instigation of boundaries can be satisfying then, but the satisfaction is 'perverse', so not wholesome. The perverse satisfaction 'added an extra and sufficient weight to the pressures of keeping closed what had once been totally open' and so Pascoe found it easier at the opening of *Bones and Silence*, to confide less in Ellie (141). Pascoe found the boundaries easier to cope with, less risky and more reassuring than total openness.

But hiding within Newtonian boundaries has dire effects. It places dangerous limitations on Pascoe's understanding of the writer of the suicide letters. Peter does not show Ellie the Dark Lady letters: she will not let him see the biography she is writing of Chung. It is at least partly as a result of Ellie and Peter staying well within their secure Newtonian boundaries that Chung dies. Possibly realising that she has misjudged Dalziel and that he will not be able to prevent her suicide after all, Chung wants to '"appoint you [Pascoe] as my editorial representative in the Pascoe household"' (313). Perhaps she hopes (consciously or subconsciously) that if Pascoe sees what Ellie has written of Chung's biography he will identify the Dark Lady of the suicide letters as Chung herself.

But the holistic paradigm favours process over stasis and the relationship of Peter and Ellie is shown as a process. It is when Ellie and Pascoe share things, act as one, that Pascoe gets the information he needs to resolve the mystery of Tony Appleyard's and Gail Swain's deaths. By 'tuning in' to the natural knowledge system of the bats Ellie not only opens her own mind, widening her experience and her understanding, but that

of Peter Pascoe as well. Hat Bowler's similarly mind-expanding memories of cormorants are discussed later in the chapter.

The Significance of Staging the Mystery Plays

The Aristotelian God in a Newtonian Scientific World

The staging of the Mystery Plays represents a breakdown of the Newtonian paradigm's division of past from present. Mediaeval Mystery Plays were a literary form at the time when the Aristotelian paradigm was arguably at its most powerful. In *Bones and Silence* they might equally well be seen as contributing to the all-inclusive nature of the holistic paradigm of the modern age. They might be considered as restoring the balance in an age where science, and to a large extent only science, offers a promise of total knowledge of the universe. Wheeler notes one negative effect of this prioritising of science within the modern world.

> [I]n doing away with God, and in replacing Him with man as the source of all knowledge about the world, modernity opened within itself a sort of abyss of meaninglessness: the joy offered by reason's escape from superstition was accompanied by a particularly modern terror induced by the apprehension of an utterly meaningless world. (1999:72)

The concept of a meaningless world features strongly in the work of Barbara Nadel and is discussed in more detail in Chapter 5. The production of the Mystery Plays in *Bones and Silence* serves to illustrate the beneficial effects of reintroducing (reacknowledging) the religious dimension into an increasingly secular world.

The Mystery Plays of the York cycle were first performed to celebrate the feast of Corpus Christi in the year 1376. At a time when few people could read or write, the plays, originally made up of forty-eight individual pageants, told the Biblical story from the Creation to Doomsday. Originally, each episode was presented by a different guild of craftsman; often performing an episode appropriate to their trade. The Shipwrights, for example, would have built Noah's Ark. The cycle was performed regularly until 1569. Their performance was revived in York in 1951 and they are now performed every four years (www.bbc.co.uk/northyorkshire).

The theme of the Mystery Plays provides the background to the novel. The Mystery Plays touch the lives of all the main characters, either directly (Dalziel is to play God

and Swain, Lucifer), or indirectly (Ellie is to write a biography of Chung for the local paper). Hill uses the characters' relationship with the Mystery Plays to comment on their personality traits. For example, Chung as director is in complete control of the Mystery Plays, but not of the elements of her own personality. Through their effect on the characters and their influence on the plot, Hill employs the Mystery Plays as a way of assimilating the Aristotelian paradigm which they represent, into contemporary culture.

Chung gives two reasons for wanting to stage the Mystery Plays. Firstly, she wants '"to recapture those days when spiritual and temporal were inextricably intertwined and the Church was the one true centre of civic life"' (49). She wishes, perhaps, to return to an Aristotelian age when man had not divided the world into the spiritual and temporal, or perhaps she sees the possibility of reuniting them within the emergent holistic paradigm. Her second reason is that: '"it was all there, in every sense. The only other way to get such a comprehensive statement of life was to do all of Shakespeare from *Hung be the heavens with black, yield day to night!* to *And my ending is despair'*" (260). The last of these quotations is eerily prophetic of Chung's own end and is a clue to Chung's identity as the suicidal Dark Lady which Dalziel should, perhaps, have noticed.

Further, when Pascoe asks Chung why '"you're so keen on these plays"' (165) she says that '"the play's the thing. […] This is where it all began, these are the roots, the modern European theatre starts here"' (166). Moreover, Chung feels that '"we can tune in at a stage far earlier in evolutionary terms than Greek classical drama"' (166). So she is trying to reach back to where drama started, to its very creation as the Mystery Plays reach back to the creation of the world.

Chung's Mystery Plays are also illustrative of the holistic paradigm in their valuation of society and community, of their bringing together the spiritual and the temporal, and of their breaking down of barriers such as between professional actor and amateur. The Mystery Plays are acted mostly by lay-people. The few professional actors that there are organise and train groups of characters. There is a reciprocal relationship here. The common man acts within the Mystery Play as the Mystery Plays act within the psyche of the common man.

The Plays are also about the compression of space and time. They compress the Biblical stories into just a few hours of drama In acting out the Mystery Plays as the everyday life of the town continues, they almost negate the time interval between the Biblical events, the original staging of the Mystery Plays and the present. These overlapping time zones are counter to the Newtonian paradigm's understanding of time as absolute and unidirectional as described in Chapter 1.

The staging of mediaeval Mystery Plays in a modern city can be seen as a metaphor for the enduring power of myth and religion within our modern, empirical, scientific world. Wheeler has shown that 'religious forms of knowledge [such as the mystery plays] begin to return within science – especially where that has been informed by the development of complexity science' (94). The division between science and religion so favoured by the Newtonian paradigm was a construct: the world is not really so divided. The holistic paradigm almost parallels the Aristotelian world before man had created (not discovered) such divisions. The old myths, legends, and paradigms are still moving within us, like the wagons of the mystery play processing through the town, forming part of the platform or the viewpoint from which we experience and attempt to make sense of the world.

The Bishop wanted the mystery plays to be acted out in the Charter Park, that is in a Newtonian confined space, away from the centre of the city. But Chung wanted the performers to process through the heart of the city with the plays being performed much nearer to the Cathedral, among the ruins of St. Bega's Abbey. Eventually it is Dalziel who gets St Bega's Abbey for Chung by using his influence with the Bishop. The Cathedral belongs to the Aristotelian paradigm as a symbol of the reign of God over the world. Chung asks about the Cathedral: '"How did they do this without machines?"' '"They had something better, they had God"' the Canon replies (51). Great things were possible before the Newtonian mechanistic age, then. The Canon seems to be suggesting that the pre-Newtonian age, when God was all-powerful, was a better time; perhaps that religion is better than materialism.

Chung shows Pascoe the carved figures of tradesmen in the cathedral, pointing out that '"the guy who carved these knew those people, he'd seen them, he knew they were as important and everlasting as anything else in this place'" (167). In staging the Mystery Plays, Chung is '"not doing any prissy historical reconstruction"'. Rather, she was

‘“plugging into a continuum”’ (167). This illustrates the importance of the idea of wholeness, of the past being at one with the present, to Chung’s thinking.

Aspects of the Aristotelian, Newtonian and Holistic Scientific Paradigms Identifiable within *Bones and Silence*

The influence of the Aristotelian paradigm is demonstrated in the exploration of the concept of God in the various aspects of the character of Dalziel: as the God of the Mystery Plays, as the ‘God’ of CID, and in the role of God in the fate of Chung which she tries to force upon him in sending him the suicide letters. The novel’s interrogation of the effect of boundaries links the Aristotelian paradigm, within which man-made barriers had yet to be created, with the new holistic paradigm which favours wholeness, integration and the dissolution of barriers.

Aspects of the Newtonian paradigm are shown as still exerting considerable influence in the twentieth century in *Bones and Silence*, firstly through the maintaining or removal of man-made barriers and boundaries, and secondly, in the continuing importance of the Baconian scientific method and forensic scientific evidence. Barriers and boundaries are generally shown to have a negative influence, although their removal can result in a lack of stability, for example, in Peter’s relationship with Ellie. *Bones and Silence* illustrates how the removal of barriers also removes the position of an objective viewpoint which can make the determination of the absolute truth difficult, if not impossible.

The negative effect of division is illustrated through an examination of the relationship between Peter and Ellie Pascoe, and within the personality of Chung. When such barriers are broken down, as within the personality of Dalziel, and within the police ranking system, different elements are no longer confined, restricted or at odds with one another and so they can be used as best fits the circumstances. However, the breakdown of the barrier between ‘outside’ and ‘inside’ can be problematical. Dalziel’s effectiveness as a police officer is weakened by his lacking an objective viewpoint as he is both ‘inside’ and ‘outside’ the investigation. Barriers between qualities such as rationality and irrationality are presented as untenable.

The Newtonian paradigm's Baconian scientific method with its emphasis on the collection and classification of data is shown as not being enough, on its own, to solve the case. Gentry's Forensic Examination Unit '"can only work on what we're given, on what we're told"' (377). It is only when the barriers between the intuition of the detective and the scientific expertise of Gentry's team are broken down that the Forensic Unit can be given the correct brief and the investigation can move forward.

Adherence to Newtonian barriers can result in stalemate. A jury will not accept what Dalziel and his team believe to be true without sound scientific evidence: this evidence cannot be obtained until Dalziel's team know what tests to request. In this way, the detectives are required to know the answers first. They only seek confirmation from the forensic team. Baconian science does not provide the answers, it only verifies them.

The holistic paradigm is shown as being the model most beneficial to problem solving in the twenty-first century. Firstly, *Bones and Silence* shows how problems are solved more quickly when people (Ellie and Peter and the detective team) work together and share information. Secondly, the beneficial effect of acknowledging our history is demonstrated through the performance of the Mystery Plays.

Thirdly, the holistic paradigm conceives of time as existing as a spiral, revolving but never quite repeating itself. This is illustrated in *Bones and Silence* by, for example, the staging by Pascoe of a reconstruction of the night Dalziel 'witnessed' the murder, the 'two murders' of Gail Swain, and the two appearances of Chung on the Cathedral tower parodying the St Matthew's Gospel account of the Temptation of Christ. Chung's first appearance on the tower is alongside Canon Horncastle and his wife. Hill calls this 'The Temptation on a tower' (53) where Chung tempts the Canon to accept the idea of holding the Mysteries in the ruins of St Bega's as his own. Chung next appears on the tower with Pascoe as he tries to save her from suicide. The parody of the Gospel story continues. In the Gospel the devil takes Jesus to the pinnacle of the temple and tells him to throw himself down as, if he is the son of God, angels will bear him up. As Mrs. Horncastle was 'leaning out over the parapet' (54) when Chung first visited the tower, at the end of the novel it is Chung who 'leaned far out over the parapet' (414), the narrator's words nearly, but not exactly the same.

***Good Morning, Midnight* (2004)**

Good Morning, Midnight is significant to this thesis because it demonstrates, firstly, the negative effects of Newtonian divisions and barriers through an exploration of relationships within the Maciver family and, by reference to the principles of the Gaia Hypothesis, between aspects of the natural world. Secondly, it questions the Newtonian concept of time and space as absolutes.

As discussed in Chapter 1, Stephen Hawking points out that the rise of relativity theory necessitated the abandonment of the idea that there was a 'unique absolute time' (159). Rather 'time became a more personal concept, relative to the observer who measured it' (159). Unifying gravity with quantum physics necessitated the formation of the concept of 'imaginary time' which can move in any direction and is indistinguishable from directions in space (159). This imaginary time forms an integral part of the holistic paradigm. *Good Morning, Midnight* questions the Newtonian assertion that past and present are totally separate, favouring the holistic paradigm's concept of imaginary time by showing how events of the past can overlap the present. Thirdly, *Good Morning, Midnight* investigates the negative and positive aspects of the Newtonian concept of complete objectivity.

However, a darker mood prevails in *Good Morning, Midnight* which links it with the work of Barbara Nadel examined in Chapter 5. Whereas there are positive outcomes in *Bones and Silence,* such as the improvement in the relationship between Ellie and Peter Pascoe, these are less apparent in *Good Morning, Midnight.* The story both begins and ends with war, perhaps suggesting that the world is trapped within a cycle of conflict. As Peter Ling points out, '[e]ach of the novel's six sections is prefaced by a date that links the narrative to the evolving political debate over weapons of mass destruction and to the U.S. decision to use war as a key instrument of foreign policy' (62). *Good Morning, Midnight* demonstrates the negative effects of living within the Newtonian paradigm's divisions and boundaries and of the holistic paradigm's lack of complete objectivity, without offering any viable positive alternative.

Good Morning, Midnight opens with a short section set in Iraq in 1991, three weeks after the end of the first Iraq war. Khalid Kassem, whilst scavenging in the ruins of an industrial plant for anything useable or sellable, discovers the dead body of a woman

and narrowly escapes the blast of an unexploded bomb he sets off unintentionally. The body is later identified as Dalziel's former lover and CIA operative Linda Steele (Ling: 63). Ling identifies the theme of American identity as central to the concerns of the novel. The holistic paradigm's concept of the past as an integral part of the present features even more strongly throughout *Good Morning Midnight* than was the case in *Bones and Silence.* The interweaving of different time zones challenges the implication of Newton's First Law of Motion, that movement (here represented by the progress of events) is continuous and unidirectional. Events in *Good Morning, Midnight* do not always proceed chronologically, but, as previously noted with regard to *Bones and Silence,* frequently adopt a spiral form, as demonstrated by the setting of the beginning and end of the novel in Iraq.

The next chapter is set in Moscow House, Yorkshire, in 2002. It describes in detail the preparation for, and execution of Pal (junior) Maciver's suicide. Pal (junior) stages his suicide to appear to be an exact copy of his father's suicide ten years previously. The suicide is set up with Newtonian mechanistic precision. It was Pal (junior) who found his father's body. Dalziel wants the case wrapped up as soon as possible, but Pascoe thinks that there is more to both the case itself, and to Dalziel's reluctance to start a full investigation, than at first meets the eye.

On reviewing the case without Dalziel's permission, Pascoe comes across a tape of Pal (junior)'s statement offered shortly after his father's suicide in which he blames his step mother, Kay Kafka for Pal (senior)'s death. He also implies that Dalziel has been 'majicked' by her (178). Pascoe wonders if this is why Dalziel wants Pal (junior)'s apparent suicide wrapped up quickly. Pascoe's reviewing of the case here (as he reviewed the evidence in *Bones and Silence*), is an example of the holistic paradigm's notion that time can progress in a spiral further challenging the Newtonian paradigm's understanding of time as unidirectional.

Why Pal (junior) should have chosen to commit suicide on the tenth anniversary of his father's death is a mystery which forms the central theme of the novel. For the reader, knowing at the onset that Pal (junior) committed suicide shifts the central question of this novel from the more usual 'Who committed the crime?' to 'Why did he commit suicide?' Many reasons are suggested including Pal's discovery of his wife Sue-Lynn's affair with Dr Tom Lockridge and his desire that the suicide of his father should be

reinvestigated and the part he suspects Kay to have played in it (although Pal had no evidence) revealed. The importance of the question 'Why?' links this novel to John Creasey's *Inspector West Alone* (1950) and to the Aristotelian paradigm. This has been dealt with in Chapter 2.

Although Ellie Pascoe shuns any physical relationship with the lesbian Cressida (Pal's sister), they are still great friends. On the day of Pal (junior)'s death, he missed his game of squash with Helen's (Pal's sister) husband Jason. On hearing that a body has been found at Moscow House, the old Maciver family home, the family, fearing a link, converges on Moscow House. Moscow House functions similarly to a strange attractor of the holistic paradigm's Chaos Theory (Smith 8) in the way it acts as a focal point through which the trajectories of the different characters pass. Helen's going into labour with twins in Moscow House, where she herself was born, offers an example of the holistic paradigm's assertion that time can follow a circular or spiral path. Helen wants to call the girl-twin Kay, after her step-mother, again demonstrating this spiral effect. Kay observes that '"nature likes a pattern"' (133).

A second underlying theme of the novel is the role of the company Ashur-Proffitt-Maciver (Ash-Macs). This company was owned by the Maciver family firm until an American company, for whom Tony Kafka, (Kay's second husband) works, took it over in the 1980s. Pal (senior) was given a seat on the board, but only for show. Tony Kafka travels to London to meet with Victor Warlove (Under-Secretary in the Department of Overseas Aid) and Timothy Gedye, 'whose passports described him as a civil servant but whose actual job was as hard to get a purchase on as his person' (230).

The difficulty in establishing a solid, concrete identity for Gedye is important as it questions the Newtonian concept that objects (including people) mirror the discrete, self-contained solid particle of Newtonian physics. It is also related to the concept of Newtonian barriers and division. The suggestion that Gedye's identity is not fixed continues the interrogation of identity encountered in Creasey's *Inspector West Alone.* While ascertaining the identity of the killer is an essential feature of the detective fiction form, this is developed in *Inspector West Alone* to include problems relating to the identity of the detective himself. This is developed further in the work of Nadel into an interrogation of the very nature of identity itself.

Kafka, Warlove and Geyde discuss the involvement of Ash-Macs in illegally shipping arms to the Gulf which has made the company huge profits. Tony is becoming weary and wonders if the shipments should be postponed for the time being. The possibility is suggested that Pal (senior) found out about the illegal arms dealing and threatened to expose the company, possibly being murdered as a result.

The story returns to investigating Pal's suicide. Dolly Upshott, the vicar's sister, worked part-time for Pal (junior) in his antique business. This developed into a sexual relationship. Pal asked her to dress up as Dolores the prostitute. As Dolores, she, Pal and Jason (Helen's husband) would meet every Wednesday night for sex, when it was generally thought that Jason and Pal met to play squash. Again raising issues of identity, for Dolly '"Dolores was part of me, of course, but only a part, and I, me, Dolly Upshott, was completely separate from Dolores"' (510). This Newtonian division within a single personality is similar to the divisions within the personalities of Dalziel and Chung already noted in *Bones and Silence*. Hill originally created Dolores and Dolly as two separate characters before realizing that 'two characters that I'd created were in fact one' (www.harpercollins .co.uk).

Pascoe tells Dalziel of his misgivings regarding Pal (junior)'s suicide and Dalziel gives him twenty four hours in which to 'discover whether or not there is any criminal element in Pal Maciver's death' (293). The SOCO team is dispatched to Moscow House again. The statement of Dolores, who spoke to Kay, puts Kay at Moscow House at around the time of Pal's death. This, together with her palm print found during the SOCO team's second examination of Moscow House, suggests that she may know more about his death than she had previously admitted. It is also suggested that Pal (junior) staged his suicide in the manner he did in an attempt to frame her for his murder.

Lavinia Maciver, Pal (senior)'s sister, has a friend, a Mr. Waverley, whose identity, like that of Geyde, is also rather shady. Initially he refers to himself as a VAT investigator, but his story, the last to be told, shows him to be a sleeping member of the Secret Service. The lack of definition of the character of Mr. Waverley illustrates a problem inherent in the holistic paradigm's lack of boundaries. To define Mr. Waverley would be to separate, to divide what he is from what he is not. Without boundaries, we can

make no objective decisions about whom or what Mr. Waverley, or anyone else, is. It is not possible to decide whether he is friend or foe, whether or not he can be trusted.

Present with Jake Gallipot at Moscow House on the night of Pal (senior)'s death, Mr. Waverley's story gives the fullest account of the events as they occurred on that night. On his arrival he found Kay downstairs with Pal, dead, in the library. Kay's story was that she and Pal had rowed and fought. He had fallen against the wall dislodging an ice-pick displayed there. The ice-pick fell onto Pal's head, killing him. The men arranged the incident to look like suicide, turned up the heating to distort the time of death and arranged for Kay to be in America when the body was discovered, making suspicion unlikely to fall on her.

At the end of the investigation nothing is certain. According to Pascoe: '"we've got a whole bunch of statements from just about everyone involved in this business, and I'll tell you what, there's not a one of them I'm one hundred per cent certain of. And that includes even those I think believe they're telling the truth"' (596).

All the main characters tell their stories, making the reader privy not only to their version of events leading up to the death of Pal (senior) but also giving insight into their personalities and how the past has shaped the present for each of them: Pal (junior) (167), Cressida (217), Helen (312), Kay (362 and 378), Jason (419), Dalziel (462), Dolly (507) and Mr. Waverley (575). For none of them is the Newtonian division of past and present a feature. All their present lives are influenced by their past. The retelling by the different characters of the events leading up to the deaths of Pal senior and junior functions as a 'split-narration' of these events, noted by Martha A. Turner in relation to Charles Dickens's *Bleak House* (1852 – 3). As in *Bleak House,* the split narration of *Good Morning, Midnight* is also coupled with an 'obsessive interest in uncovering buried truths' making it not only about how to obtain truth, but about the nature of truth itself as the truth varies with each account (Turner 81).

The warring Maciver family illustrates the danger of Newtonian division. The Maciver family is, according to Helen '"a weird family"' (62). According to Cressida the Macivers are '"a fucked-up family, collective guilt is the order of the day"' (216). Sue-Lynn calls them '"Twistier than a hangman's rope"' (281). Relationships within it are

complicated and fraught with hostility, illustrating the dangers of the Newtonian paradigm's favouring of separation and division. Kay accuses Pal (junior) of making unwelcome sexual advances towards her while Pal similarly accuses Kay. After the death of Pal (senior)'s first wife, he married Kay, a match which alienated the two older of his three children, who saw her as a gold digger, dividing the family. The youngest child, Helen, however came to worship Kay, causing a strain in her relationship with her siblings. By 2002, Kay is remarried to Tony Kafka and Helen is married to Jason. There has been some reconciliation between Helen, Pal (junior) and their sister Cressida.

Helen and Hat Bowler – The Influence of the Holistic Gaia Hypothesis

Helen is referred to as both the holistic paradigm's 'Gaea' [sic] (76, 78) and as Earth Mother (80, 81). She is heavily pregnant with twins, but the analogy can be extended to encompass the role Helen plays within the novel. In Helen all things meet. Like Gaia, Helen tries to create conditions in which all the disparate members of the Maciver family can thrive.

It is through the birth of Helen's twins that the family line will be continued. Through her the two most opposed members of the family, Pal (junior) and Kay, are to some degree reconciled. Kay spends Wednesday evenings at Helen's house while Helen's husband Jason is out with Pal. In hospital after giving birth to the twins she continues to represent the wholeness and goodness of the Earth. Pascoe observes that '"she could have sat for an allegorical portrait of bountiful summer'" (308). Helen represents everything wholesome, unconstrained and unbounded. Even her speech is like a 'verbal torrent' (311), unbounded by the Newtonian-inspired order of the laws of English grammar. Her statement is spoken without pause, one sentence to a paragraph. Her words are not divided, bounded or constrained by punctuation and yet her speech and narrative are perfectly understandable.

Helen's relationship with Kay helped Kay to come to terms with her own daughter's death, while Kay's love as a step-mother helped Helen cope with her father Pal (senior)'s suicide. Kay and Helen's relationship is an example of the positive feedback which is a feature of both the holistic paradigm and the Gaia Hypothesis. Yet Gaia is under threat. Helen's husband Jason has been engaging in sex games with Dolores and Pal. The stability of their family unit is only sustainable whilst all its members work to

serve the whole. It is threatened by Jason's selfish lack of restraint as the stability of the earth is threatened by man's self-seeking attitude and lack of regard for the earth and its life as a whole.

Detective Constable Hat Bowler relates to Lavinia Maciver the occasion at the age of six, when he first became interested in birds. On the Pembrokeshire coast, Hat saw a pair of cormorants flying. In their flight he experienced the Gaian oneness of all creation. He tells Lavinia:

> "I remember trying to be them, trying to feel in my imagination what it was like, moving through the air at that speed and every time you look down, seeing the wild ocean surging and frothing and foaming beneath you [...] I think I just about imagined it physically, […] but since I grew up I've come to know exactly what it's like. It's like living." (290)

One can learn about living life from nature, then. Humankind and the animal kingdom are not totally separate. We do not own the planet, or the life on it. For Lovelock: 'the Gaia hypothesis implies that the stable state of our planet includes man as a part of, or a partner in, a very democratic entity' (Lovelock 137).

Good Morning, Midnight, questions the nature of objectivity and subjectivity. Further, it illustrates problems which can arise from the holistic paradigm's assertion that total objectivity is not possible. Without an objective viewpoint everything becomes relative. All the reports of the events leading up to Pal (senior)'s suicide are given by people involved in the case. They are not objective observers, but are a part of what they observe. Their reports are given from their own biased perspectives. Even Dalziel is not objective as his view of the case is influenced by his relationship with Kay Kafka.

What is more, the usefulness of the Newtonian paradigm's objective forensic science is also brought into question. As Gentry, the Head of the Forensic Unit points out, '"I tell you nothing […] I merely present the facts"' (483.) Newtonian scientific facts alone are of scant use in solving the case as they do not 'tell' us anything. And so the case ends without the closure that Dalziel and Wield, at least, require (600).

There is no evidence that Pal (senior)'s death was anything except suicide. He had an inoperable brain tumour. Pascoe tells Wield and Dalziel: '"We have done all we can, I think. Whether we've done enough, we won't find out till the evil day, whenever that

is"' (601). The lack of an objective viewpoint means that the case ends full of uncertainties. The case cannot be enclosed by any boundary. There is no satisfactory closure for the police either. In Dalziel's words: '"there's nowt we can do about any of the big stuff, sanction busting, politics, all that shit"' (596). Pascoe, as 'moral arbiter of this little trinity [himself, Wield and Dalziel]'(600), 'put on a parsonical voice and declaimed, 'For we wrestle not against the flesh and blood, but against principalities, against powers, against the rulers of the darkness of this world, against spiritual wickedness in high places'' (600).

Incomplete Division of Time and Space in *Good Morning, Midnight*

Good Morning, Midnight presents the idea of time as relative, rather than supporting the Newtonian understanding of time as absolute. In *Good Morning, Midnight* the past and present are not distinct time-zones. The setting of the first and last chapters in Iraq and giving both the same title 'By the Waters of Babylon', also questions the Newtonian separation of time and space. The past reaches into the present and at times almost runs parallel to it, such as in the copy-cat suicide of Pal (junior).

In his statement Mr Waverly says that '"the world is a botched palimpsest [...] From time to time attempts are made to obliterate what has been written before and inscribe something completely new. But the ur-writing always shows through"' (575). It is not possible to re-write the past, but neither is it possible to contain and fix it, to separate it from the present. When discussing the possible links between the Iran-Contra affair and Ash-Macs, Dalziel says '"That's old history, done and dusted"', but Pascoe disputes this: '"No, Sir, stuff like that's never done"' (477). This is a danger inherent in the holistic paradigm's dissolution of boundaries. The past cannot be safely contained, distanced from the present. It is a constant real threat. But as Mr Waverly implied, time is not reversible. All one can do now is live with the consequences as the Maciver family try to live with the suicide of Pal (senior) and Pal (junior).

The placing of an account of Pal (junior)'s suicide near the beginning of the novel Hill allows the reader to '"experience the rare blissful state of knowing more than Dalziel and Pascoe"' (www.harpercollins.co.uk). The reader knows that Pal (junior) committed suicide. As a narrative device, this knowledge '"gave me [Hill] the chance to […] focus much more on the reactions to the book's main death."' (www.harpercollins.co.uk).

Again, this challenges the Newtonian concept of time as absolute. The normal structure of the detective novel is to work backwards from the discovery of the body to the point of death and so discover the killer; here Hill uses Pal (junior)'s death as a starting point from which to travel both forwards and backwards. This exemplifies the holistic paradigm's view of time as multidirectional in contrast to the Newtonian paradigm's view of time as unidirectional.

While Pal (junior and senior)'s deaths can be seen to represent a holistic spiral, Hayles sees the influence of both the Newtonian and the holistic paradigms in the inexact repetition of events. She points out that as 'the measurement of time depends upon both similitude and difference […]. [U]nvarying reflection, being circular, would obliterate time. Making us aware that time has passed are the displacements from exact reflection' (120). Further:

> The symmetrics serve the purpose of defeating the ordinary [Newtonian] linearity of time; the asymmetries allow us to distinguish between similitudes and hence to define them as discrete events separated in time. (121)

Pal employs the Newtonian metaphor of the world as a giant clock in his use of a system of pulleys and levers to copy the exact circumstances of his father's death with Newtonian precision. However, Newtonian science failed to provide an explanation for his father's actions ten years previously, and fares little better in ascertaining the truth of Pal (junior)'s suicide. In true Newtonian style the detectives examine every element of the method and mechanism of Pal (junior)'s suicide, but the suicide is more than just a method. Understanding the method does not bring the detectives any nearer an understanding of the deed itself. Even Gentry realizes the limitations of the Forensic Team's findings. He points out to Dalziel '"We simply present our findings and offer any hypotheses that seem germane. But we leave the conclusions to CID"' implying that Newtonian science and scientific method alone do not offer any closure (484).

Aspects of the Aristotelian, Newtonian and Holistic Scientific Paradigms Identifiable within *Good Morning, Midnight*

The Aristotelian paradigm is of minimal importance in *Good Morning, Midnight.* The Aristotelian God aspect of Dalziel's personality examined in *Bones and Silence* is of far less importance here. Dalziel himself is not mentioned until page seventy-four of the

novel and only makes his first appearance on page seventy-nine, after the introduction of Peter Pascoe and most of the main characters. There is still, however, the implication that he is God-like in his role as Head of CID. For example, Ellie comments that '"God [meaning Dalziel] alone knows, but I'm sure if we wait, he'll tell us"' but this is not developed (80).

Aspects of the Newtonian paradigm, however, exert considerable influence on the plot of *Good Morning, Midnight* as well as on the characters themselves. Firstly, Hill continues his exploration of the dangers of division previously noted in *Bones and Silence*, through reference to relationships within the Maciver family. Their mutual separation and distrust proves damaging to their individual development and to their ability to create meaningful lives for themselves. The suicide of Pal (senior) haunts each and every one of them. There can be no closure for any of the characters as the reason for his suicide remains a mystery.

The effects of Newtonian division within a single personality are explored through the two aspects of the personality of Dolly Upshott. For a time Dolly can function quite happily as both the vicar's sister and as the prostitute Dolores until things start going wrong. Dolly is still in control, however, which makes her able to cope. She decides that Pal's suicide means the end of Dolores also. As in *Bones and Silence*, the presence within a character of vastly different personality traits presents no problems so long as these can be consciously reconciled by the character. Dolly Upshott will be able to move forward in her life without Dolores.

Secondly, the inability of the Maciver family members in particular to move on, brings into question the Newtonian concept that absolute time is the only viable manifestation of time. Newtonian absolute time moves forward in a straight line: time for the characters in *Good Morning, Midnight* moves neither on, nor forward. Their world exists within the 'imaginary' time-frame of the holistic paradigm in which the past and the future are no longer strictly separate, but inform and influence each other. The Newtonian concept of the separation of time and space is also brought into question. It is not just the characters who seem trapped in time and space: the world cannot move on either. The novel begins and ends in the same place – in war-torn Iraq: history (the past) invades the present. Pal (junior) appeals to Newtonian science to provide a satisfactory

reason for the suicide of his father ten years previously, but it as unable to do so now as it was then. Newtonian science alone is sterile.

Good Morning Midnight, like *Bones and Silence* generally favours the holistic paradigm's concept of wholeness, unity and cooperation over the Newtonian paradigm's model of division and separation. The holistic paradigm is represented in *Good Morning, Midnight* as destroying the certainties of the Newtonian world without providing any satisfactory alternative. The dissolution of Newtonian barriers separating subject from object obliterate the possibility of an objective viewpoint. Without an objective viewpoint everything (including truth) becomes relative to the observer and the possibility of reaching closure, a final state of knowing the truth, is not possible.

In Conclusion: The Three Scientific Paradigms and Hill's Detective Fiction

The aspects of the Aristotelian scientific paradigm most clearly demonstrated in these three novels are, firstly, the importance of forms of knowledge other than the purely scientific. Knowledge gained from psychic sensitivity, such as that of the medium Rosetta Stanhope at the opening of *A Killing Kindness* and from the Christian knowledge system through the performance of the Mystery Plays in *Bones and Silence* are particularly important here. Hill shows the benefits of keeping an open mind to the possibilities inherent within these different forms of knowledge. Hill also demonstrates that purely scientific knowledge and knowledge verifiable through science, such as that of Gentry's forensic team, are not the only forms of useful knowledge.

Secondly, the novels demonstrate the dangers of enclosing knowledge within man-made boundaries, such as the separation of the natural world of the bats from the world of forensic science in *Bones and Silence,* rather than accepting the integration of all forms of knowledge. In this the novels both revisit a pre-Newtonian age before man had constructed these barriers between different types of knowledge and move forward into the present-day holistic age, where many different forms of knowledge are recognized as beneficial.

Another feature of the Aristotelian paradigm apparent in these novels is it interrogation of stasis and motion. In *A Killing Kindness*, it is Greenall's fear that his victims will be trapped in the stasis of marriage, as his own wife was, which prompts him to murder.

Yet it is motion which causes not only his death, but the deaths of his daughter and her husband, and of Peter Dinwoodie.

The Domination of the Newtonian Scientific Paradigm

Several aspects of the Newtonian paradigm are shown as still exerting considerable influence in the twentieth century. Firstly, the creation and maintenance of man-made barriers, and secondly, in the expectation that Baconian scientific method (and the forensic science it inspires) is the only route to the complete truth.

Barriers and boundaries are generally shown to have a negative influence. The negative effect of division for the characters is illustrated through an examination of, firstly, the relationship between Peter and Ellie Pascoe, secondly, the personality of Chung in *Bones and Silence,* and Dolly Upshott in *Good Morning Midnight* and thirdly, within the Maciver family also in *Good Morning, Midnight.*

Adherence to the Newtonian barriers can result in stalemate. In *Bones and Silence* for example**,** a jury will not accept what Dalziel and his team believe to be true without sound scientific evidence: this evidence cannot be obtained until Dalziel's team know what forensic tests to request. In this way, the detectives have to know the answers first. They only seek confirmation from the forensic team. Baconian science does not provide the answers, it only verifies them. Barriers between qualities such as rationality and irrationality are presented as untenable.

The Newtonian paradigm's Baconian scientific method with its emphasis on the collection and classification of data is shown as being insufficient, on its own, to solve the case. Gentry's Forensic Examination Unit in *Bones and Silence* '"can only work on what we're given, on what we're told"' (377). It is only when the barriers between the intuition of the detective and the scientific expertise of Gentry's team are broken down that the Forensic Unit can be given the correct brief and the investigation can move forward, such as in the second search of Moscow House in *Good Morning, Midnight,* when Kay's palm-print is found on the door.

Conversely, the dissolution of barriers can cause difficulty, their breaching causing a lack of stability. The removal of barriers between 'outside' and 'inside' in particular is

shown as problematical. Dalziel's effectiveness as a police officer, in both *Good Morning, Midnight* and *Bones and Silence*, is weakened by his lacking an objective viewpoint as he is both 'inside' and 'outside' the investigation. Removal of barriers also eliminates the position of an objective viewpoint which can make the determination of the absolute truth difficult, if not impossible.

It is quite possible for a single personality to be composed of conflicting aspects so long as the character still exerts overall control. For example, Dalziel can use the conflicting aspects of his personality as best suits his situation at any one time. When appearing at the ball in *Bones and Silence,* he is all charm 'immaculate in a d.j. of the latest cut, with heliographic shoes and diamond studs glinting like ice in his snow-white shirt' (241): to Swain, being interviewed by him, he is a '"great lump of blubber […uttering] loutish maunderings"' (60). Dolly Upshott, in *Good Morning, Midnight* can exist as a prostitute and as a vicar's sister quite happily for a time but has enough control to know when these two positions become irreconcilable. When such barriers are broken down within the police ranking system, the different members of Dalziel's team are no longer defined by rank but by the qualities which they bring to the investigation.

The Holistic Scientific Paradigm for a New Age

The main concepts of the holistic paradigm which appear most important to Hill are the understanding of the world as an integrated whole, without man-made barriers or division. This is examined through an exploration of, firstly, what constitutes valuable knowledge: secondly, the effect of imposing barriers and finally, the concept of time, as discussed earlier in relation to the Newtonian paradigm

However, the holistic paradigm also has disadvantages. It is frequently shown as destroying the certainties of the Newtonian world without always providing any satisfactory alternative. The dissolution of Newtonian barriers separating subject from object obliterate the possibility of an objective viewpoint. In *Bones and Silence,* this causes Dalziel's position to become somewhat precarious as he is both 'inside' and 'outside' clouding his judgment. In *Good Morning, Midnight,* none of the characters can view the deaths of Pal senior and junior from an objective viewpoint. Without an objective viewpoint everything (including truth) becomes relative to the observer and

the possibility of reaching closure, a final state of knowing the truth, is not possible. We can never be totally sure of knowing the truth of Pal (senior)'s death.

Despite this, the holistic paradigm is shown as being the world-model most beneficial for problem-solving in the twenty-first century. For example, in *Bones and Silence* problems are solved more quickly when people (Ellie and Peter and the detective team) work together and share information. A beneficial effect of acknowledging our history, is demonstrated through the positive effect on the life of the town and on individual characters of the performance of the Mystery Plays (49). The Mystery Plays inject a sense of optimism into the community. They bring together not only past and present, but people from different walks of life to work together as members of the Mysteries committee. This does not go well at first, but eventually they learn to work together. A feature of the holistic paradigm is that it is all-inclusive: every aspect of human experience and existence has to find accommodation within it, including the suicide of Chung.

The holistic paradigm's concept of time existing as a spiral, revolving but never quite repeating itself, is illustrated in *Bones and Silence* by, for example, the staging by Pascoe of a reconstruction of the night Dalziel 'witnessed' the murder, the 'two murders' of Gail Swain, and the two appearances of Chung on the Cathedral tower parodying the St Matthew's Gospel account of the Temptation of Christ.

The use of the quotations from Shakespeare's *Hamlet* (1599 – 1601) in *A Killing Kindness* sets up a conflict between two worlds, that of Hamlet and that of 1990's Britain. As was discussed with reference to both *Good Morning, Midnight* and *Bones and Silence*, time viewed from within the holistic paradigm is not necessarily fixed as past or present. This can have both negative and positive effects. On the one hand revisiting the past, for example through the Mystery Plays in *Bones and Silence*, can reestablish our roots, giving a sense of solidity and security to our lives and reuniting us with a bygone age when we imagine that life was simpler. On the other hand, as experienced by the characters in *Good Morning, Midnight*, if the past is allowed too much influence over the present, characters are not able to move on in their lives. This leaves them unable to fully experience the present. Pal (junior)'s life is so tied up with the past that he tries to replicate it by committing suicide in the same manner as his

father before him. Conversely, Greenall is so anxious to escape the past that he murders young girls who are about to marry in an attempt to prevent their being trapped (as he sees it) within the role of housewife. What Greenall regards as entrapment, the Aristotelian paradigm regarded rather as settlement. It is getting the balance right that is important: knowing when to use the past for support and when to let it go.

The world depicted in *A Killing Kindness, Bones and Silence* and *Good Morning, Midnight* is a world of flux and change. The old order no longer applies: its rules inappropriate for the modern age. The novels suggest that something new is needed, a revised model of the world or worldview: one that can be relied upon to start to address the demands of the twenty-first century. The science of the Newtonian era is no longer a panacea. It has itself made possible many of today's problems such as modern warfare which forms the backdrop to *Good Morning, Midnight* and Nadel's *Deadly Web* discussed in Chapter 5. Hill's novels suggest that we need to be more aware of other forms of knowledge, more open-minded if we are to address the problems of the world adequately and with confidence in the future.

Overall, Hill's work brings to this study a recognition of the beneficial effects of employing forms of knowing other than the purely scientific alongside the dominant Newtonian paradigm. The inclusion of many forms of knowledge paves the way towards a more holistic paradigm, within which a deeper, more complete understanding of the universe is made possible. The work of Jardine, which forms the subject of the next chapter, expands this point. It further demonstrates a deterioration in the effectiveness of the Newtonian paradigm alone to satisfactorily solve every problem.

Chapter 4

Questioning the Newtonian Paradigm: The Bob Skinner Novels of Quintin Jardine

Born in Motherwell, Lanarkshire, Quintin Jardine has written nineteen detective novels to date, featuring Deputy Chief Constable Bob Skinner. All set in Edinburgh, the first, *Skinner's Rules*, was published in 1993: the latest *Fatal Last Words* in 2009. This chapter will concentrate on three books: *Skinner's Ghosts* (1998), *Autographs in the Rain* (2001) and *Death's Door,* published in 2007.

The work of Jardine is important to this study because of the attitudes to science which it portrays. In contrast to the work of Reginald Hill and Barbara Nadel, mainstream science and technology play a far more dominant role here. For example, Skinner's wife Sarah (later, his ex-wife) is a skilled pathologist. Skinner himself is reliant on technology as we learn in *Fallen Gods* (2003) that he is fitted with a pacemaker (58). This science is, however, frequently inadequate, its shortcomings signalling the need for a reconsideration of the value today's society places on mainstream science as the primary source of truth. Unlike Hill and Nadel, Jardine's work rarely refers to psychic powers. However, the detective team frequently employ the, arguably, lesser skill of intuition in solving of the case. Like Hill's Andy Dalziel, Skinner sometimes appears almost divine. At other times, however, he is presented as all too human in his vulnerability.

In Jardine's later works, especially *Death's Door* and *Aftershock* (2008), the holistic world view is beginning to challenge the Newtonian world view as the dominant scientific paradigm. Yet, the mood is often one of nostalgia for a fast-fading secure, rule-bound Newtonian world of laws and absolutes. The emerging holistic world view is one of insecurity and vulnerability where nothing can be trusted, not even the forces of law and order.

This chapter aims primarily to assess the influence of the Aristotelian, Newtonian and holistic paradigms on Jardine's Skinner novels. Having identified the tenets of each paradigm most relevant to Jardine's work, it will then investigate the degree to which

the novels support or undermine the worldview presented by each paradigm through its attitude to these tenets. A further aim of this chapter is to compare and contrast the attitudes portrayed to the Aristotelian, Newtonian and holistic paradigms by the Skinner novels with that of three representative novels of Hill and Nadel discussed in Chapters 3 and 5.

Aspects of the Aristotelian, Newtonian and Holistic Scientific Paradigms and Jardine's Novels

One concern of both the Aristotelian and Newtonian paradigms interrogated within the novels of Jardine is the relationship between stasis and motion. As Martha A. Turner points out, the Aristotelian paradigm privileged stasis over motion (45). Within the Aristotelian paradigm, every person and object seeks its own level and comes to rest contentedly, through a process of natural motion, when it is found. However, Skinner's attitude to contentment within his personal life counters this position. In *Skinner's Ghosts* (1998) for example, Skinner feels that '"contentment should not be enough"' (107).

Skinner's Aristotelian settlement with his first wife Myra was destroyed by Myra's death before the start of the series. Since then he has drifted from one unsatisfactory relationship to another. The detrimental effect of this lack of settlement reaches a climax in *Skinner's Ghosts* where his new partner, Pam Masters, has deliberately manipulated herself into a relationship with him in order to ruin his career in revenge for Skinner's killing of her terrorist brother. Skinner is settled neither emotionally nor physically. He has no settled place of residence, dividing his time between his cottage in Gullane, two properties in Spain and one in Fairyhouse Avenue, Edinburgh (*Ghosts* 245).

As discussed in Chapter 1, the Aristotelian paradigm presents a teleological worldview where everything has a purpose which it strives unceasingly to attain. Generally, Jardine's novels do not support this view. Skinner's life often seems to lack direction and purpose. For example, in *Skinner's Ghosts*, colleague Andy Martin sees Skinner as '"stumbling about like a lost soul"' (107).

The Newtonian worldview privileges motion over stasis. Supporting this, within the world of Jardine's novels constant change is accepted as normal. Characters frequently change partners, exemplified by Skinner's numerous personal relationships. Characters

are also frequently moved from post to post within the police force, for example in *Death's Door,* as a result of Detective Inspector Stevie Steele's death and Maggie's pregnancy. The moral standpoint of the characters is also subject to change. In *Aftershock,* for example, it is surprisingly the procurator fiscal, the public prosecutor, who is guilty of the murders. While supporting the Newtonian privileging of change over stasis, the fiscal's guilt simultaneously undermines the Newtonian view of the world as an ordered system. Rather, it demonstrates the danger of crossing Newtonian boundaries, for example between law and lawlessness. In a Newtonian ordered society the role of procurator fiscal is irreconcilable with that of murderer.

The Newtonian privileging of motion over stasis is also apparent in the ease and frequency with which characters move from location to location. For example, in *Death's Door,* the shady businessman Davor Boras has a private jet which enables him, his family and colleagues to travel almost undetected. The relationship between stasis and motion also raises issues of loyalty, constancy and fidelity, both in personal and professional relationships and also in the relationships of the characters to the dominant ideology.

Newtonian movement is continuous and along one straight axis. Skinner's movement of his officers between the various divisions of the police force generally facilitates their progress (forward motion) along their chosen career paths. However, in the Newtonian world it was possible, by backward motion, to end up exactly where one started. Correspondingly, it is possible within the police force to be demoted as well as promoted. Skinner himself is suspended from duty in *Skinner's Ghosts* (202) while Detective Chief Superintendent Andy Martin is likely to be retired early on the grounds of ill health in *Aftershock* (2008).

The deterministic outlook of the Newtonian paradigm is represented in Jardine's work by the way in which characters are forced into movement or action by past events or external forces, usually in the form of other people. Criminals in Jardine's work often commit crime because they are manipulated into doing so by those more powerful than themselves. In *Death's Door,* the multimillionaire Boras manipulates his son into exacting revenge for the murder of his daughter, Zrinka, by murdering her supposed killer Ballester.

Skinner's view of the role of a detective reveals a certain sympathy with the science of the Newtonian paradigm. As he tells Steele, in *Lethal Intent* (2005): '"[w]e're scientists […] we only go in for guessing when it's founded on something concrete"' (307). Further, in *Thursday Legends* (2000) Skinner gives a radio broadcast '"selling the concept of the detective as the true forensic scientist"' (258). This seems to support Turner's view that, within the Newtonian paradigm 'empirical observation and rational inference of underlying laws were the only ways to gain definitive knowledge of the world' (Turner 70).

However, this does not mean that Skinner relies solely on Newtonian science. At critical moments Skinner and his colleagues are quite prepared to override the scientific evidence in favour of intuition. As Skinner says in *Head Shot* (2002); '"evidence is nice, but trust your instincts"' (61). In *Death's Door*, for example, all the evidence supports the view that Ballester committed suicide while Skinner's intuition tells him that Ballester's apparent suicide was staged. Skinner's intuition is proved correct: Ballister was murdered (*Door* 415). This situation is similar to that in Hill's *Bones and Silence* (1990), where Dalziel's (correct) conviction that Swain is guilty flies in the face of all the evidence. This is discussed at greater length in Chapter 3. Occasionally, Skinner's intuition actually overrules the Newtonian inspired forensic evidence. In *Fallen Gods* (2003) for example, when all the forensic evidence seems to point to Sarah having killed Neidholm, Skinner's intuition suggests the collecting of different forensic samples which disprove her involvement.

The novels also examine the role of observation, so fundamental to Baconian scientific method. Within Jardine's work, this observation is not only carried out externally to the body of the victim but also within the body of the victim at autopsy. Turner has identified 'the imagination's compensatory function in a world in which inductive observation falls short' (Turner 74). Empirical facts and evidence rarely reveal much by themselves: their correct interpretation requires a degree of imagination. This is demonstrated, for example in *Death's Door,* when Skinner explains to his son how he needs to envisage a scene in his imagination in order to work out what happened there (407). In their acknowledgment of the importance of different types of knowledge in ascertaining the truth, the novels are supporting the holistic paradigm's vision of inclusiveness.

The Newtonian paradigm regarded the universe as working as a mechanical system, a system which could be manipulated to serve the ends of those who understood its workings (Turner 43). The world of the Skinner novels, the world of the police force in Scotland, is a hierarchical and highly structured, rule-bound Newtonian system. It is a system that Skinner understands well. He has risen to the rank of Deputy Chief Constable within it. Rather than finding this rigid system stultifying, Skinner is able to use its structure to further his own ends in a manner appropriate to the holistic paradigm.

Skinner is able to influence the promotion (forward motion) of his subordinate officers, moving them between divisions and rank to the position in which Skinner feels they will best serve the forces of law and order. A good example of this is Skinner's influence over the promotion to Superintendent of Dave Donaldson in *Skinner's Mission* (60). Skinner's manipulation of his subordinate officers into rolls which best suit their diverse talents demonstrates a practical application of the holistic worldview that sees the world as an integrated whole. The novels explore the degree to which a Newtonian system can also contain elements of the Aristotelian paradigm and in so doing become an integral part of the holistic paradigm's concept of inclusivity.

The Newtonian worldview is atomistic. It is composed of discrete objects which act independently. Skinner is independent. He is his own man, a unique individual whose elevated rank brings with it a certain distancing from his colleagues. Although, like Hill's Dalziel, Skinner is a 'hands-on' policeman who does not wish to reside behind a desk in the command corridor, he is not really a team player.

While the Newtonian worldview provides for the separation of subject and object, acknowledging the position of the objective observer, the holistic paradigm holds that complete objectivity is not possible. The observer is of necessity a part of that which he observes. This is mirrored in the character of Skinner. Skinner is not an objective observer: he is a highly visible central part of the crimes which he investigates, to the extent that, in *Skinner's Ghosts* and *Aftershock,* he is implicated in the crime itself. Often, due to his desire to become too closely involved in the investigation, fellow officers and associates are put at risk. Stevie Steele, a colleague and close friend of Skinner's, for example, is murdered in *Death's Door.*

The titles of the first seven novels in the Skinner series all have Skinner's name in the title, for example *Skinner's Rules* (1993), emphasizing the detective's centrality to the investigation. Skinner's being an integral part of what he observes supports the holistic worldview of interrelatedness. Jardine's work offers a critique of this position, generally showing the overstepping of boundaries, especially between the personal and professional life of the detective, as dangerous. This is demonstrated by, for example, an examination of the problems caused by Skinner's relationship with Pam Masters in *Skinner's Ghosts,* examined in greater depth later.

Jardine's concept of the nature of time develops between the earlier and later novels. Whereas events within the earlier novels, such as *Skinner's Round* (1995), are played out within an exact time frame, in later works, such as *Death's Door*, time seems almost irrelevant. For example, one does not know on what day, date or time the events within *Death's Door* occur, leaving the reader unsure of the length of time which has elapsed between events. This inability to fix the novels' actions within an exact time-span results in a sense of confusion and lack of Newtonian direction. In this way the later novels support the conception within the holistic paradigm that time is not an absolute.

As discussed in Chapter 1, within the complexity science of the holistic paradigm human beings are themselves increasingly considered as complex systems, influencing and being influenced by the society of which they are an integral part. Jardine's novels examine the relationship between the individual detective and the various strata whose interaction forms the basic structure of society. Wendy Wheeler notes how societies themselves are 'complex non-linear evolving holisms' (2006: 54). These interactive strata include the social (for example, issues of morality raised in *Death's Door* and *Skinner's Ghost*s); economic (the Boras Empire in *Death's Door*); political (Skinner's relationship with the First Minister, Aileen De Marco in *Aftershock*), and the system of law and order within which Skinner is employed.

Within the holistic worldview strata continually interact, informing and adapting to accommodate each other. Wheeler describes it as 'a constant process of web-like but uneven interconnection' (2006: 32). Jardine's novels investigate the benefits and more often, the dangers of this interconnectiveness. For example, Skinner's personality is multifaceted. He is at the same time a political figure, high-ranking police office, family man, lover, colleague, friend and, to the criminal at least, enemy. This interconnectivity

can present Skinner with almost insurmountable difficulties, for example, in *Skinner's Ghosts.*

Skinner's Ghosts **(1998)**

Skinner's Ghosts is important to this study because while it acknowledges the increasing influence of a more holistic worldview, this influence is generally portrayed as negative. In Hill's work the holistic integration of different knowledge systems frequently helps solve the crime, such as in *A Killing Kindness* (1980). The result of this integration, however, in Jardine's novels is rarely beneficial for any of the characters involved, and certainly not for Skinner.

Skinner's Ghosts initially appears to be constructed around two separate story lines, each of which has its own sub-plot. The first involves both the murder of Leona McGrath and the kidnap of her young son Mark. The second is an attempt to ruin Skinner personally and professionally. This is to be achieved firstly, by the publication of lewd photographs of Skinner with his mistress, Sergeant Pam Masters and secondly by the framing of Skinner for corruption. The two stories, however, soon overreach their Newtonian constraints as they become intertwined with each other and with the lives and careers of the other characters. In retrospect, it becomes apparent that there was only really one plot with multiple strands.

The plot (or plots) invades the lives of other characters, such as the Secretary of State for Scotland, Dr Bruce Anderson, pulling them into situations of which they do not wish to be a part. *Skinner's Ghosts*, generally supports the science and technology associated with the dominant Newtonian paradigm, although the characters frequently find the failings of technology frustrating.

The title *Skinner's Ghosts* bears witness to the influence of the past within the present as recognised within the holistic paradigm. It also reaffirms the link between detective fiction and its literary foundations within the Gothic novel. Its reference to 'ghosts' also suggests the importance of phenomena which lie outside the understanding of the concrete world of the Newtonian paradigm. *Skinner's Ghosts* demonstrates the need for Newtonian barriers and division, especially between the private and personal domains

of the detective, whilst noting with caution that a blurring of boundaries, such as between the role of the detective and the forensic scientist, can be beneficial.

Holistic Interconnectedness: The Murder of Leona McGrath

The novel opens as Andy Martin, Head of CID, telephones to tell Skinner of the rape, battering and murder of Leona McGrath and of the disappearance of her six year old son, Mark. Mrs McGrath was Tory MP for Edinburgh Dean. Mark was the only survivor of a plane crash in a lock the previous year, which killed his father. It was Skinner who rescued the boy from the sinking plane cockpit. The Newtonian division between Skinner's personal and professional life is blurred as he is both personally and professionally involved in the case from the outset.

As Skinner kneels by her body, the horrific injuries that Leona sustained are described at length and in detail (15-16). The description, however, is narrated in the layman's language of Skinner rather than the dispassionate language of the later pathologist's report. The language of the narration conveys not only the clinical state of the body itself, but also the impassioned response of Skinner to Leona's murder. Descriptive phrases such as that of the '[g]reat livid bruises and welts [which] showed all over her pallid, yellowish skin' have Gothic overtones (15). The skin of the monster in Mary Shelley's (1797 – 1851) *Frankenstein* (1818) is also described as yellow (Shelley: 39). This again links the novel back to the Gothic whilst providing for the sophisticated reader, familiar with *Frankenstein,* another deeper stratum of meaning. The different strata of meaning within the novel itself thus combine in holistic wholeness, perhaps affording another level of understanding and allowing greater reader-satisfaction.

The language cleverly portrays death not as just the Newtonian objective extinguishing of life, but as the loss of the victim's personal Aristotelian qualities. By implication, a human being is not the solid, mechanical conglomeration of parts of the Newtonian paradigm, but possesses an Aristotelian soul. This device is used again in the description of the qualities of Zrinka's dead body by the officers who find her in *Death's Door,* discussed in more detail later.

A press conference is given detailing the search for Mark. Alan Royston, the force's civilian media relations officer, incurs Skinner's wrath by admitting Noel Salmon to the

press conference, who, together with his newspaper the *Spotlight*, has been banned by Skinner from police headquarters. Skinner wants Royston suspended. There is some suggestion that Skinner's intense reaction might be the result of Pam's having had a relationship with Royston before she met Skinner. Newtonian boundaries between personal relationships and professional conduct are again being transgressed to the detriment of all involved. It is at this point that the connection between the story-lines surrounding Leona's murder and the ruin of Skinner is first suggested.

Skinner receives a telephone call purportedly from the kidnapper of Mark which is recorded. Skinner, Andy Martin and Pam conduct a brainstorming session. Andy Martin suggests that the motive of the culprit might be to get at Skinner, not only suggesting a link between the two cases, but implying that they are, in fact, one case. This is almost Aristotelian in that, rather than removing Newtonian barriers between the two story-lines, Andy Martin's suggestion implies that they never existed separately in the first place. Mark was perhaps kidnapped because of Skinner's close relationship with him: Leona possibly killed as a surrogate for Skinner's wife Sarah. Skinner fears that if the kidnapper is trying to destroy him professionally and emotionally, then Pam may also be at risk. She is guarded by police around the clock as a result. Holistic linkage between Skinner, Mark, Sarah, Pam and Leona again proves detrimental, not least of all for Skinner.

Demonstrating support for forms of knowledge other than the purely scientific, Skinner has '"a sudden thought"' that the killer might be holding Mark up on the moors near to the site of the plane crash from which Skinner rescued Mark (150). Skinner goes on to say that: '"I don't think. I wonder [if Mark is being held on the moors]"' (150). This suggests a distinction between logical reasoned Newtonian thought and wonderment, which is more akin to the knowledge systems of the Aristotelian paradigm. Similarly, Andy Martin comments that Skinner has '"had a hunch"' (151). When Alex asks '"[i]s it a good one?"' Andy Martin replies that '"they usually are"' (151) suggesting that the insight which Skinner gains through his intuitive powers is usually correct. This proves to be the case here.

As a result of Skinner's hunch, police search the moors. They discover a cleaned, empty caravan displaying false number plates. However, the top from a yogurt pot and a Mars

Bar wrapper are found behind a seat. Newtonian science and technology triumph here. From the bar code on the wrapper, the supermarket manager from where it was purchased can tell the police the date and time when it was purchased. Mark's finger print is on the yogurt pot lid.

Skinner and Andy Martin try to picture the killer planning the kidnap and murder; they try to '"read inside his mind"' (194). This holistic interchange of ideas during which the thought patterns of the two detectives merge, is similar to the brainstorming sessions in *Autographs in the Rain.* It demonstrates an advance over the situation in Hill's *Bones and Silence,* where Peter and Ellie have to learn the advantages of sharing information in that it pre-supposes the sharing of information to be desirable. In trying to get inside the perpetrator's head, Skinner and Andy Martin are in a sense trying to force him to share his thoughts with them, breaching the boundaries between the killer's thought processes and their own.

Dr Anderson seeks a meeting with Skinner to enquire into the progress of the McGrath case as he is being put under pressure by fellow MPs for a speedy resolution. The blurring of Newtonian boundaries between politics and law and order cause difficulties here for both Skinner and Anderson. Furthermore, Skinner confides in Anderson that he thinks that '"this man is a ghost from somewhere in [my] past"' (182). This not only suggests that boundaries between past and present have similarly been breached, but has echoes of the Gothic revisiting of the past by the present strengthening the previously noted linking of *Skinner's Ghosts* with its literary history. For Skinner, time does not demonstrate the unidirectional motion of the Newtonian paradigm. The co-existence of past and present causes great problems for Skinner.

Skinner receives through the post a cassette tape showing Mark against the background of the television news. Mark tells him that his captor has '"one more thing still to do, then he'll be ready to tell you what this is about"' (237). Pam flies the tape down to the experts in London for analysis while Skinner wonders apprehensively what the 'one more thing to do' is. Recognising that time is not unidirectional, but can be cyclical, Skinner fears that events are about to repeat themselves. He dreads another MP being murdered and their child kidnapped. News arrives that the Secretary of State's wife, Catherine Anderson, has been shot dead. Her eight-year-old daughter, Tanya, is missing.

Skinner receives a second video tape of Mark from the kidnapper. Mark tells him that Tanya is also there and that the captor wants a million pounds each to secure their release. The money is to be paid into the Guernsey bank. As none of the information regarding the account has been in the public domain, Skinner is again faced with the proposition that the courier who deposited the £100,000 in Skinner's fictitious bank account (discussed below) and the kidnapper are not Newtonian discrete entities but are one and the same person.

Detective Constable Sammy Pye takes the tape down to Caroline Farmer in London. Skinner heard a low flying military jet on the tape. Sergeant Neil McIlhenney is sent to RAF Leuchars to check the flight paths of all military aircraft flying at the time the tape was recorded. Knowing the flight path of the aircraft and the time at which the videos of the kidnapped children were made, it can be determined that they were recorded in King's Gully. Newtonian-inspired technology again provides information useful to the investigation. Andy Martin and Skinner are picked up by army helicopter and flown to the area. The map shows two cottages there, only one of which is habitable. Skinner believes that the children have been held in this cottage since their removal from the caravan. The kidnapping and the attempt to ruin Skinner are both resolved at the cottage.

The Attempt to Ruin Skinner

The photographs which Noel Salmon has taken of Skinner and Pam through their bedroom window are going to be published with an accompanying defamatory story entitled '*Top Cop and Sexy Sarge*'. Skinner takes the advice of Mitchell Laidlaw, head of the law firm for whom Skinner's daughter Alex, works. Salmon telephones Skinner to taunt him further and to ask if he is going to resign. Skinner wonders how he got his number as he is ex-directory and on the M15 register. Someone close to him must have sold it to Salmon.

Skinner's relationship with Pam is to be brought before the Joint Police Board. At this meeting, Sir James supports Skinner. He recognises that boundaries should be maintained between the professional and personal spheres. Sir James reminds the Board that, '"[t]he days in which personal relationships between serving police officers were forbidden are long gone"' (157). However, '"[o]n a personal level, rather than

professionally, [he does] not believe that by today's standards Mr Skinner and Miss Masters are wrongdoers"' (157). Problems arise when Newtonian division between how a police officer acts in his personal life and what is perceived as correct behaviour for a police officer of Skinner's rank clash. The hypocritical public face of the Police Board is prepared to condemn Skinner for his behaviour. However, as Sir James points out, '"among the members of this Board, there must be at least one who is living in what some might call sin, with a person separated and not yet divorced "' (157).

Skinner is summoned to the Secretary of State's office to face charges of corruption. The Secretary of State has received information, backed up by documentary evidence, that Skinner has a private account with JZG Bank which holds an alleged corrupt payment of £100,000. The payment was allegedly to secure a good outcome in a criminal case for the donor. The information has come from Salmon. Skinner is suspended pending an investigation and advised to seek legal representation. His daughter Alex is appointed as one of those acting for him. Alex too is not confined within Newtonian boundaries as her roles as Skinner's daughter and her professional life as a solicitor overlap. The receipt for the deposit is later found taped under Skinner's desk drawer. The aged and formidable Christabel Innes Dawson, QC is instructed to defend Skinner should the case come to court.

The investigating officers, Chief Superintendent Ericson and Deputy Chief Constable Cheshire, visit the bank's headquarters in Guernsey to discover that the money was deposited in cash by a courier accompanied by a covering letter bearing Skinner's signature. The bank manager's description of the courier fits the description of the man who bought the Mars bars and yogurts found in the abandoned caravan where Tanya and Mark were held. Skinner is forced to confront the likelihood that the McGrath murder and kidnap and his own persecution are not Newtonian discrete events, but are linked. Skinner is unhappy in accepting this holistic interconnection because in doing so he is also accepting that his past actions are at least partly responsible for Leona's killing.

Reminiscing with Christabel, they recall the prosecution of one Peter Gilbert Heurer, for burglary. Convicted largely as a result of Skinner's evidence, Heurer was sent down for eight years. Skinner, whose memory of Heurer's voice is refreshed by their discussion,

realises that it is the same voice that made the telephone call regarding Mark's kidnap: the kidnapper is Heurer. Skinner plays the tape to Christabel who also identifies the voice. By establishing a holistic interconnectedness, the recognition of Heurer's voice recalls his criminal past and provides the motive for his involvement in the plot to bring down Skinner: revenge for his conviction.

With the realisation that Heurer is deeply involved in the killings, kidnappings and the framing of Skinner, the plot-lines merge into one, or perhaps there was only ever one plot all along. Heurer had carried out some shady business for MI5 who had disowned him when it went wrong. For Heurer, the killing of Leona and Catherine Anderson and the kidnap of their children was a way of getting back at the establishment which had disowned him and at Skinner whose evidence had convicted him.

The kidnap situation is resolved as Andy Martin enters the back of the cottage and rescues the children. As Andy Martin signals that the children are safe, Skinner shoots Heurer in cold blood as he remembers Leona's battered body. Skinner presses Heurer's gun into his hand and fires off one shot, making it look like suicide.

Salmon admits to Skinner under duress that it was Pam who tipped him off about their relationship. Skinner already realised that only she could have taped the invoice under his desk and obtained his official signature on a blank piece of paper. Pam set him up because she held him responsible for the death of her brother Ross, who was a hit man. Pam and Ross had both known Heurer and so Pam had contacted him after Ross's death to seek his assistance in ruining Skinner. Pam, Ross, Salmon and Heurer are all connected in trying to bring about Skinner's downfall: they are the ghosts from his past. Holistic interconnectedness is bad for Skinner. Although Heurer was responsible for the actual killings, the plot to discredit Skinner involved multiple perpetrators. The actions of these individuals together are far more effective than any individual action could have been, as they were able to attack Skinner on different fronts simultaneously. In line with the holistic worldview, the whole is more than the sum of its parts.

The corruption case against Skinner never comes to court. His wife Sarah returns hoping for reconciliation. Skinner explains that: '"I've been haunted for the past few months [...] visited by all my ghosts and horrors from my past"' (403), again demonstrating, through images of 'ghosts' and 'horrors' detective fiction's Gothic

heritage. On the one hand, the story ends full of hope for the future as Skinner and Sarah forgive each other all that has gone before and recognise that they are soul mates. On the other hand, though, Skinner has crossed boundaries here. He too has become a killer.

The tying up of all the strands of the plot at the end of the novel gives a sense of closure, for the reader, at least. However, the holistic understanding of time as irreversible is upheld. Skinner will never be the same as he was before the events of the novel occurred. He is weaker. His Newtonian solidity and integrity have been permanently undermined. He has been shown as vulnerable. He has been betrayed by his lover. Further, in becoming a killer himself, he has crossed the Newtonian boundary. There is no return for Skinner. Holistic interconnectedness between his past and present and between his personal and professional life has nearly destroyed him.

The Successes and Failures of Newtonian Technology

The Taped Telephone Calls from the Kidnapper

As discussed in Chapter 3, the four tapes thought to have been recorded by the killer in Hill's *A Killing Kindness* (1980) are subjected to detailed analysis by the linguists Drew Urquhart and Dicky Gladmann. In *Skinner's Ghosts* the recording of the telephone call purported to be from the kidnapper of Mark is sent to '"people down in London [...who] are analysing every fragment of sound [...] seeing if there's anything in the background that they can locate"' (103).

There is an interesting distinction here demonstrating advance towards a more holistic viewpoint. In *A Killing Kindness* it is the voice itself that is being analysed. However, in *Skinner's Ghosts,* written eighteen years later, it is the whole recording, not just the recorded voice in isolation, which is important. Although little is learned about the identity of the kidnapper, the analysis reveals the location from which the call was made, fairly accurately. It is the holistic interaction between the voice and the sounds of the external environment captured on the recording which provides the essential clue needed by the detectives to locate the call. This illustrates David Schmid's argument that the background of contemporary detective fiction forms a holistic, interactive element within the novel.

Schmid has suggested that rather than just passively providing background for the plot, the role of space and setting in detective fiction might be far more deterministic. Schmid understands space and location as 'dynamic, strategic and historical' opening up the story to the influence of the ethos of the different locations (Schmidt 3). Although beyond the scope of this study, the effect of location in detective fiction might provide an interesting area for further research.

The Newtonian-inspired technology of the taped telephone conversation does not, on its own, achieve anything. The information accessed from the tapes needs the services of a skilled interpreter before its importance is realised. The recording is being worked on by Caroline Farmer, 'a graduate of the Massachusetts Institute of Technology [...] over on the new information exchange programme' (120). In Hill's work all the action takes place in England. Here, allusions to America widen out the geographical area over which the action takes place. Nadel's work, discussed in Chapter 5, expands the geography of the plot even further. This is an example of the Newtonian paradigm's breaching of barriers and containment. The drama is no longer safely played out within the enclosed environment of much Golden Age detective fiction (see Chapter 2). Crime, along with everything else, is undergoing globalisation.

America and England are sharing expertise in true holistic fashion. The process has progressed further than in *A Killing Kindness*: Caroline Farmer is far more expert than Urquhart and Gladmann. However, despite having staff who can 'place the origin of UK citizens by the nature of their speech' they can only say that the caller 'is either disguising his voice or [has] been subject to so many influences that he cannot be pinned down' (121). The caller might have spent some time out of the UK or had one non-Scottish parent. The voice is itself not the unique concrete entity of the Newtonian paradigm, but the product of the holistic interconnectiveness of the many influences upon it. Jardine again suggests here that the lack of Newtonian barriers can have a detrimental effect.

The technology is far more successful in locating the place from which the call was made than in analysing the voice. Both sides of the telephone conversation between the kidnapper and Skinner were recorded separately. Skinner remembers hearing a flock of

geese fly overhead during the call. The same flight of geese can be heard on the recording of the kidnapper's side of the telephone conversation. Knowing that geese fly westward at that time of day, Ms Farmer is able to calculate that the kidnapper's call was made less than half a mile's distance from Skinner's home. It is the holistic combining of knowledge of the natural world with technological knowledge makes location of the call possible. This demonstrates the importance of the integration of different spheres of knowledge to determine the determination of a more complete picture of events.

There are interesting similarities here to Hill's *Bones and Silence*, where the knowledge of the habits of bats helps Peter Pascoe solve the case. This is discussed in more detail in Chapter 3.

Skinner's Relationship with Pam Masters

Skinner has never really recovered from the death of his first wife, Myra. He is frightened of being alone. He felt his grief like a '"big, cold lump that set me apart from others ... that big, cold beast of bereavement"' (59). His Aristotelian settlement, the place in life where he felt he should rightfully be, with Myra, has been lost forever.

The opinion of Andy Martin regarding his relationship with Pam is that Skinner has been, at best, indiscreet in allowing the relationship to develop. In Andy Martin's view, Skinner is '"going to be accused of abuse of [his] position, and maybe even sexual harassment [...] and the Chief is going to have some bloody job defending [him]"' (109). By transgressing the accepted Newtonian boundaries between his private and professional lives, Skinner has laid himself open to criticism and weakened his position as a high-ranking police officer. Although legally separated from his wife Sarah, he has also incurred the disapproval of both his colleagues and of his daughter who still loves and respects Sarah.

More than this, as a result of breaching a protective Newtonian boundary, he has laid not only himself, but his colleagues and the police force he represents, open to ridicule. Skinner regards his private and professional lives as different and feels that even when crossing the boundaries between them he can maintain his integrity. However, the public are unlikely to view his relationship in the same manner. Whereas Sir James does

not think Skinner guilty of corruption, Skinner's transgression of Newtonian boundaries in one aspect of his life raises the possibility that Skinner might not adhere to acceptable boundaries in other aspects of his life either. Perhaps his moral instability might allow him to accept bribes, for example. Whereas Newtonian barriers and divisions might be restricting in the rules which they impose, they can also offer security and protection. Stepping outside the rules removes this security and replaces it with vulnerability.

At the end of their investigation, Cheshire and Ericson submit a report saying that there is a strong case to answer and that charges should be brought as justice needs to be seen to be done even though there is little chance of a conviction. However, charges are never brought.

Further, the suggestion of Andy Martin implies that that Skinner's vulnerability renders him not the Newtonian objective observer of the crime but in some degree its instigator. In contrast to Hill's *A Killing Kindness*, which presents the teleological world view of the Aristotelian paradigm in a positive light, the past, especially their past association with Skinner, is here suggested as being a direct cause of Leona's murder and Mark's kidnapping. The relationship of Leona, Mark and Pam with Skinner is presented as the cause of their downfall, while the purpose of their downfall, the motive, is to ruin Skinner.

Newtonian-Inspired Baconian Method and Forensic Science

Forensic Examination of the Murder Scene

Chief scientific officer Detective Inspector Arthur Dorward and his technical team search the murder scene in the hope of finding a full, or even a partial, fingerprint other than those of Leona McGrath or her son. Skinner appreciates their diligence 'even though experience told him that the chances of their work being rewarded were around one in five' (13). The detectives do not have much faith in the powers of Newtonian-inspired forensic science, then, certainly with regard to the usefulness of fingerprints. Skinner and Sir James hope that the DNA samples gathered at the scene will correspond to those of a known offender. But their hopes are frustrated. Forensic science of the Newtonian paradigm is, certainly at first, useless to the investigation.

The Medical Examiner is Dr Banks. According to Dorward, Banks is '"not a patch on his predecessor"' (14). His predecessor was Skinner's estranged wife Sarah, who was '"gifted with the uncanny ability to paint compelling pictures of events from the very slightest of clues"' (14). Banks lacks her Aristotelian qualities of insight and imagination. His Newtonian-inspired scientific skills alone are not enough to produce anything useful to the investigation. Being a good Medical Examiner requires more than scientific skills: it requires the practitioner to display the correct attitude.

Maintaining Newtonian barriers, Banks separates the Newtonian science he practises from himself as a person. However, because he is not prepared to use human skills such as intuition, as Dorward does and Sarah did, his work is not up to their standard. Banks is unpopular with the detective team. This is brought to a head when Banks smiles about the murder, looking forward to the publicity he will get in court. He '"turn[s] up late at crime scenes [giving] half-arsed reports which don't usually help us one bit. But the worst thing about you is your total lack of respect"' (17). Banks treats Leona's dead body as an assemblage of physiological parts. This is completely at odds with the impassioned way Skinner regarded her body when he first arrived at the murder scene. Skinner and Andy Martin demand that the body of the woman they knew '"be treated with honour"' (17). Andy Martin says that he will personally have Banks's name removed from the list of medical examiners.

Dorward, on the other hand, is a trusted colleague, whose roll is not just as a collector and collator of Newtonian forensic evidence and cold, concrete facts. Dorward is prepared to step outside the confines of pure Newtonian science to use his imagination, intuition, experience and knowledge in a manner characteristic of the holistic paradigm. Dorward integrates different knowledge systems, using all his faculties and skill to aid the investigation. However, while Dorward is able not only to collect factual evidence, but to offer hypotheses, he is unable, in this instance at least, to offer any conclusions. For example, although Dorward does not think robbery the motive, he is unable to answer Skinner's question '"Then what?"' (19).

The post mortem on Leona McGrath is carried out by Joseph Hutchinson, Professor of Pathology at Edinburgh University. The process reveals nothing of immediate help to the police. The murderer used a condom, so 'not a single smear' of semen is found and therefore no sample of the murderer's DNA is immediately available (41). The

pathologist is going to '"search the body minutely [...] looking for just one hair that doesn't belong to her"' (41). Dorward's team are sent back to the victim's house similarly to 'collect every loose hair for testing' (41).

The importance placed on tiny pieces of evidence such as a single hair or a single smear of semen demonstrates the influence of the Newtonian paradigm. One basic precept of the Newtonian paradigm is that the whole can be understood by an examination of its parts. Here the investigative team are hoping to learn the identity of the murderer from minute particles from his body, such as hair and semen, but none can be found. Newtonian preoccupations and practices are again powerless to identify the murderer.

Although none of the hoped for minute particles of forensic evidence are found on the body of Leona McGrath, Dorward again oversteps his role as a purely Newtonian-inspired forensic scientist to come up with the first real lead in the case. Again Dorward steps outside the boundaries that Hill's head of forensics, Detective Inspector Genry would have seen as defining his role. Knowing the shower in Leona's bathroom to be new, Dorward began to wonder how many people might have used it. On his own initiative, Dorward calls in a plumber to dismantle the piping and the traps. Forensic examination of their contents reveals the hairs of six individuals, which Dorward wishes to test for DNA. Here again, forensic science does not identify the murderer. Its sole achievement is to make the investigation more complex as one of the hairs discovered belongs to Skinner suggesting his relationship with Leona was an intimate one. Even Sir James, who is throughout supportive of Skinner, recognises that the officers investigating Skinner are '"entitled to consider it [Skinner's promiscuity] to be evidence of moral instability"' (300).

Turner makes the point that understanding the world as governed by a set of Newtonian rules gave man a sense of control (69). Taken in this light, it is arguable that what is so unacceptable about Skinner's romantic entanglements is not so much the number and nature of the relationships themselves but that they demonstrate that Skinner is not a man to be governed by 'rules' which he deems unnecessary or inappropriate. N. Katherine Hayles similarly suggests that 'the desire to control [...] is deeply bound up with the Newtonian worldview' (136). Skinner's unwillingness to conform to the 'rules' also suggests that he might be uncontrollable.

Dorward sees the value of combining the purely scientific with intuition in his work as a forensic scientist. The importance of the use of intuition for Dorward, demonstrates a degree of dissolution of Newtonian boundaries between the role of the detective and that of the scientist not so apparent in, for example, the work of Hill. In *Aftershock,* Dorward is credited with 'investigative skill, bordering on genius' (74). This is a development over earlier examples of the genre. For example, in the character of Sherlock Holmes, and to a lesser extent in that of R. Austin Freeman's (1862 – 1943) Dr Thorndyke, the role of the detective and the scientist were one. In the far more complicated world of the new millennium this would not be possible. However, in *Skinner's Ghosts* some understanding and appreciation of each others' working practices is shown as being beneficial for both the detective and the forensic scientist alike. Thus the Newtonian barrier between science and detection becomes rather a permeable interface across which a holistic interchange of ideas which benefits both practitioners can occur.

The Holistic Interaction of Different Story Lines

This stratification and interconnection has far-reaching implications for the structure of the contemporary detective novel. In its depiction of a holistic integrated world, the Skinner series shows a progression from the novels, especially the early novels, of Hill. *A Killing Kindness,* for example, has a distinct main plot which rarely transgresses its Newtonian boundary. The interacting of multiple plot-lines in Jardine's novels, however, generally produces a far more complicated, and arguably realistic, story. The interaction of plot-lines with the everyday lives of all the characters demonstrates the increasing influence of the holistic paradigm. Jardine's plots are not self-contained, neither are their causes or solutions simple. The crimes have ramifications that stretch far beyond the story itself, even in the case of *Death's Door* and *Aftershock* into the next novel in the series.

Skinner's Ghosts is written in eighty-six short chapters, some no more than two pages in length. The chapters switch between the main detective story regarding the violent killing of Leona McGrath and the kidnap of her son, and the subordinate story line regarding the attempted personal and professional ruin of Skinner. This frequent switching between plot-lines, almost superimposing one upon another, highlights the interconnectedness of the holistic world whilst involving the reader in the confusion

which it can produce. This is a technique which Jardine develops in both *Autographs in the Rain* and *Death's Door.* It also serves to emphasis Newtonian continual forward motion by creating the sensation of a fast-moving, rapidly developing plot.

Although outside the scope of this research it is interesting to note here how this constant rapid switching between different scenes in the novel assumes an almost televisual quality. This might be an example of a Newtonian breaching of the barriers between the detective fiction novel and televisual and cinematic detective fiction.

In conclusion, the influence of the Aristotelian paradigm in *Skinner's Ghosts* is limited mainly to the effect of the loss of Aristotelian settlement on Skinner after the death of his first wife Myra. This is, however, a significant effect as its loss is at least partly responsible for the difficult position in which Skinner finds himself in the novel. His loneliness leaves him vulnerable. This vulnerability in turn allows Pam to instigate a ruinous relationship with Skinner. Aristotelian settlement, while restrictive in some ways, is protective and supportive in others.

Wheeler points out that 'what initially seemed to be opposing accounts of the world [here represented by Newtonian science and human intuition] [...] are better understood as complexly evolved strata of explanation' (2006: 55). Further, she contends that one form of human knowing should not be elevated over another: 'the point is [...] to understand much better the nature and *effects* of their interactions' (2006: 55 – Wheeler's italics). *Skinner's Ghosts* demonstrates the effects and outcomes of these interactions.

The Newtonian-inspired technology and forensic science, despite all its refinement and accuracy is only useful when combined with human qualities such as intuition and imagination. This is recognised by colleagues in the respect they hold for Sarah Skinner and Dorward who possess these attributes and the contempt in which they hold the Medical Examiner Banks, who does not. The interconnection of different strata of knowledge is essential to the formation of a more complete picture of the universe we inhabit. This is demonstrated by the positive result of the integration of knowledge of the natural world (the direction of flight of geese) with technological knowledge (the

sophistication of the recording equipment). Neither type of knowledge alone would have produced information on the location from which the telephone call was made.

Skinner's Ghosts is set against the background of an increasingly holistic world which functions as one integrated, interdependent, open-ended system. The holistic world, however, is frequently portrayed in a negative light. It is all too often a world of uncertainty, anxiety, vulnerability and confusion. Skinner lives uncomfortably within this multifaceted, stratified world. He is not an objective outsider, but is truly part of the world in which he lives, both influencing it and being influenced by it. However, Skinner seems far happier operating within the Newtonian structured, rule-bound police force which he has learned to manipulate to his (and his colleagues) advantage, than in this new open, interactive world. The contemporary world is portrayed as hypocritical. Whilst it demands that Skinner obeys its rules within his private life, it provides no rules to protect him from attempted character assassination by the media. In an older Newtonian world, Skinner's rank alone would have afforded him some protection.

Too much knowledge can be dangerous. The public's knowledge of Skinner's affair with Pam threatens his career while providing no benefit to anyone. Pam's knowledge of this fact offers her the possibility of engineering the affair to serve exactly that end. The holistic world demands greater transparency than is at times comfortable. All his fellow officers, family and friends believe him innocent of corruption. Those who do not know Skinner personally are inclined to be less generous until the Secretary of State issues a statement exonerating him.

***Autographs in the Rain* (2001)**

While *Skinner's Ghosts* shows the benefits of maintaining Newtonian barriers, *Autographs in the Rain* is important to this study because of the negative inference it places on the forensic science and technology that support the Newtonian paradigm. Newtonian-inspired technology, such as the security tapes from the Balmoral Hotel, are frequently shown as inadequate and rarely live up to expectations. Perhaps this says as much about contemporary society's inflated expectations of science as it does about science's apparent inadequacies. *Autographs in the Rain* also demonstrates that evidence collected through Newtonian technology is only as good as its human

interpretation, supporting the holistic paradigm's assertion that different forms of knowledge, such as science and intuition, work best in combination.

Moreover, *Autographs in the Rain* is important because of its preoccupation with the body of the murder victim. The increasing concern of detective fiction with the human body noted in Dorothy L. Sayers's *Whose Body?* (1923) and discussed by Gill Plain, notably in Part 1 of her *Twentieth Century Crime* (2001) is developed further here. The length of the narrative given over to discussion of the post mortem and the saponification (changing into a soap-like material) of John McConnell's body are examples of this. Clues to the identification of the murderer are to be found *inside* the body of the victim, rather than just at the murder scene. This is also a feature of the work of Nadel, for example in *Petrified* (2004) to be discussed in more detail in Chapter 5.

Jardine interweaves three separate plot lines: the stalking of the actress Louise Bankier; the suspicious death of John McConnell and a number of thefts of the complete stock from trout farms. At one of these farms the manager is murdered. These three plots run concurrently, supporting the holistic paradigm's assertion that the arrow of time is not continuously moving in a forward direction, as events are not always presented in chronological order. As noted with reference to *Skinner's Ghosts* and *Death's Door,* the chapters are generally much shorter than those in the novels of either Hill or Nadel. The constant switching of the chapters between locations and plots, usually without overtly stating the day or time, creates a sense of anxiety and confusion. The reader is rarely quite sure where he or she is in time or space, or in which plot, as these too frequently overlap. This sense of confusion is a difficulty inherent in the holistic paradigm's removal of absolutes, such as of time and space and of its transgression of boundaries.

The Three Plot-Lines of *Autographs in the Rain*

The Stalking of Louise Bankier

The novel starts with what is initially understood to be an attack on Skinner as he and Louise walk through London at night. A blank cartridge is fired at the couple from a moving car. After smoke canisters in a laundry basket are detonated in the hotel suite at the Balmoral Hotel occupied by Louise, Skinner suspects that perhaps the attack in

London was aimed at her, not at him. As a result of Skinner's suspicions, a house is rented for Louise and state of the art security installed.

Louise has been receiving strange emails from a 'John Steed' who cannot be traced as they were sent from an Internet cafe. Security tapes from the Balmoral Hotel on the night of the smoke canister incident show a slim figure possibly removing a key from the hotel reception, but the security tapes are of poor quality and coverage switches from camera to camera. Technology founded on Newtonian science falls short of expectations here. Each of the cameras has a red 'live' light on it, so the person would have known that they were being filmed and were possibly using this to their own ends. This illustrates the moral neutrality of technology, allowing it be of equal use to the perpetrator of a crime as to the police. Andy Martin airs his frustration pointing out that: '"[t]hat's the second time in quick succession that I've been let down by a video tape"' (303). However, the description of 'John Steed' from the Internet café and the image from the blurred security tapes may match. Technological observation is more useful to the enquiry when combined with the human power of observation. This supports the holistic paradigm's view that licit and illicit forms of knowledge working together provide the best route to ascertaining the truth.

Louise's supposedly secure house is gutted by fire, but Louise was sleeping at Neil McIlhenney's house at the time. Louise feels that '"[t]here's someone watching over us"' (355). Where technology cannot be relied upon, other powers, as recognised within the Aristotelian and holistic paradigms, perhaps, can.

<u>The Suspicious Death of John McConnell</u>

The separate lines of the investigation involve teams of different officers, demonstrating Newtonian division. The team of officers investigating this case are Detective Superintendent Maggie Rose, Detective Inspector 'Bandit' Mackenzie and Detective Sergeant Gwendoline Dell.

Police secretary Ruth McConnell takes her boyfriend Detective Sergeant Sammy Pie to visit her old uncle, John. Sammy finds him dead in the bath. He had been dead for several days and 'looked almost like a statue, carved in soap' (21). At first Sammy assumes that the death is from natural causes. However, after murder becomes a likely

possibility, Ruth is initially suspected of the crime as she is McConnell's beneficiary. Suspicion is soon allayed when Ruth is given an alibi by Skinner's daughter.

With no real leads, Dell and Mackenzie review the evidence more carefully. Back at her uncle's house, Ruth notices that the central heating thermostat is set very low: five degrees centigrade. Her uncle would have had it much hotter. All her uncle's valuable possessions are missing. Miss Lind, a neighbour who saw a girl resembling Ruth leaving the victim's house, is interviewed again, but she is now not sure whether the girl's car was blue or green. However, Miss Lind does remember the bag which the girl was carrying. It was '"[a] big square thing, almost the size of a suitcase"' (123).

Skinner's pathologist wife Sarah looks at the report of the case pathologist, Dr Helga McCallum and the scene of crime photos. One possible scenario she suggests is that the old man suffering from rapidly developing dementia, runs himself a bath and in his confused state steps straight in to it. The shock of the scalding water might cause him to faint and drown. However, Sarah is concerned about the unexplained presence of a sedative in McConnell's blood which is absent from his stomach. Despite this, she feels that '"it'll still be damn near impossible to prove homicide at the end of the day'" (131). If the mystery woman is ever caught, Sarah says that the evidence so far is as much use to the defence as to the prosecution.

Forensic evidence, like the CCTV tapes, is impartial. Knowledge of a scientific fact is lifeless and static: it does not show how or why the crime was committed. The evidence of Newtonian science, then, cannot necessarily determine what happened to a victim, nor by whom. The implications of the pathologist's report are discussed in more detail later. The situation here is similar to the situation in Hill's *Deadheads* (1983), where, despite forensic tests, it cannot be proved that all Dick Elgood's near-fatal accidents were attempts on his life until after the final one had killed him..

Mackenzie and Dell return to McConnell's house. On entering, Dell shivers and tells Mackenzie '" I do not like this place […] I believe that evil clings to places and takes a long time to go away, and I feel that something evil happened here"' (196). Mackenzie brings her back to reality saying '"That'll sound good in the witness box. Let's find some evidence. In my experience that works better with juries"' (196). These sentiments bear a strikingly resemblance to those expressed by Dan Trimble regarding Dalziel's

lack of concrete evidence to support his instincts in Hill's *Bones and Silence* discussed at greater length in Chapter 3. Pre-Newtonian acceptance of non-empirical forms of knowledge associated with human feelings and intuition have no place in a court of law. Only Newtonian concrete objective evidence will hold sway there.

Similar to the session in *Skinner's Ghosts* noted above, Skinner and Mackenzie 'brainstorm' over the death of John McConnell, trying to '"join up the dots"' (371). This 'brainstorming' is an example of 'the interaction of agents who mutually affect each other' (Lewin 202), an important aspect of the holistic paradigm's complexity theory. This, and other precepts of the holistic paradigm mentioned here, is discussed in greater detail in Chapter 1. By employing this technique the detectives learn from each other. The sum of the detectives' knowledge is greater than the sum of their individual knowledge.

By linking all the evidence and using their intuition, the detective team arrives at the conclusion that McConnell is the subject of an Internet 'snuff' movie. The use of the Internet as an instrument of crime is discussed in more detail in Chapter 5 with reference to Nadel's *Deadly Web* (2005). A search of the Internet finds the movie. Technology is more successful here. Through technological enhancement, the movie reveals Lucy, Louise's sister, to be the model in the movie. Skinner concludes that '"[s]he made the movie. She killed the old man. She's Louise's stalker"' (422). Her motive is jealousy. Skinner arrives on the set of the film Louise is making just in time to stop Louise's murder and to arrest Lucy. There is a similarity here with *Skinner's Ghosts* discussed above, where again apparently separate plots actually contribute to a holistic whole.

<u>Thefts of Trout: A Contribution to Paradigms</u>

Meanwhile there is a report of the total stock of trout having been stolen from the Mellerick Trout Farm, one of the biggest in the region. The team of officers assigned to investigate this case include Skinner, Detective Chief Superintendent Dan Pringle, Detective Sergeant Jack McGurk and Andy Martin. Skinner is angry as Bill Gates, the manager of the farm, did not act when told two years previously to improve his security. A second theft occurs, this time at the Howdengate Trout Farm owned by Glenn Lander. Again the farm has no proper alarms or surveillance equipment fitted. Skinner

regards technology derived from Newtonian science is a positive element in the fight against crime. The implication is that had the security been adequate, the crimes would not have been committed.

From a comparison of the tyre tracks found at the two raided farms, forensics can tell that the vehicles used were the same. Pringle is expecting too much, however, of Newtonian science when he asks if it is possible to follow the trace of mud left on the road by the trucks to their destination. Dorward, Head of the Forensic Unit, points out that being able to compare mud from the trout farm with mud on the trucks (if they are ever found) is '"bloody clever as it is, lad; I draw the line at the impossible"' (185). Newtonian science has its limits, then.

McGurk and Andy Martin visit the other two trout farms in the area to warn them and suggest they fit better security. There seems little threat to the Langholm Rainbow farm as it has high-definition cameras on high poles and is floodlight at night. The Country Fresh Trout Farm, on the other hand, has no security except an on-site manager, Kath Adey. Unbeknown to the owner, Mercedes Alvarez, the police, trusting in science, decide to set up their own surveillance of her farm using two cameras with timers, in the wood beyond the trout farm.

When McGurk visits the farm to change the tapes, he finds Kath's body floating in one of the tanks and all the fish gone. The phone line to her house had been cut and there is no mobile phone signal at the trout farm. Newtonian-inspired technology has failed to protect Kath or catch the thieves. McGurk takes the tape to Tony Davidson, the Director of Communications in the hope that it has recorded Kath's killer. The tape shows Kath being bludgeoned to death but cannot identify by whom. It then shows two lorries arriving, one of which stops with its headlights pointing directly into the camera, blinding it.

Whilst on a walk up the Southern Upland Way with McIlhenney, Louise spots what appears to be a well-secured trout farm where one is not known to exist. Raymond Anders of Eildon Security is implicated in the raids as he has visited all the trout farms recently ostensibly to sell them security equipment. Pringle outlines the evidence against him to his lawyer, Geoff Lessing and offers him a deal, but Lessing points out

that '"[w]hat appears to be evidence for the Crown, is in fact evidence for the defence"' (344). A similar point is made earlier by Sarah, referring to the pathologist's report on McConnell. This idea occurs again with regard to the murder of Ron Neidholm in *Fallen Gods* (2003). The evidence itself is impartial, it is the interpretation put on it that is important.

Police suspect Alvarez, Lander and Gates of also being involved. Alvarez and Lander gave each other alibis for the nights on which their respective farms were raided, whilst Gates owns the land on which the non-existent trout farm is sited. But there is not enough evidence to secure a conviction. In order that evidence which will convince a jury be secured, Baconian scientific method must be followed. The involvement of Alvarez, Lander and Gates is initially hypothetical. Like all scientific hypotheses it needs to be tested. The team '"have to catch them together"' (382). They have to '"stake out that farm until they all show up"' (382). The farm is placed under observation by McGurk (409). The suspects eventually all arrive at the farm and, after a shooting incident involving an armed response unit, Mercy Alvarez turns Crown witness. The detective team's procedure mimics a scientific experiment in that it involves observation, the formation of theories and hypotheses and the testing of these hypotheses. The situation here illustrates Turner's point that the Newtonian assumption 'that the accumulation of observational data somehow produces truth' is in error (24). The case needs Mercy's evidence as a witness, guaranteeing her exemption from prosecution, to convict the others. Unlike *Skinner's Ghosts,* where all three plot-lines prove to be different aspects of the same case, only two of the three plot-lines here are reconcilable. The case of the trout farm thefts remains separate from the persecution of Louise by her sister.

The Role of Mainstream Newtonian Science

Jardine's interest in Newtonian scientific techniques demonstrates an expansion of the preoccupation of the detective with science noted in Sayers's '*Whose Body?'* discussed in Chapter 2. In *Autographs in the Rain* Jardine spends a far greater proportion of the narrative in relating and discussing forensic techniques and other scientific disciplines than do either Nadel or Hill. For example, the whole of Chapter 22 (seven pages) is given over to the discussion, between Skinner and Sarah, of the pathologist's report on McConnell's body. The dwelling on the constituent parts of the human body is an

example of Newtonian atomisation; the concept that knowledge of the whole can be gained from an examination of its parts.

The increased importance of technology is apparent in the giving over of four pages of Chapter 49 to a discussion of the role of the Internet café and the security tapes at the Balmoral. It is almost as though Jardine is trying to emphasise the importance and relevance of science and technology to the investigation whilst giving mainstream science a chance to prove (or otherwise) its worth. This might also suggest that Jardine attributes far more importance to the science and technology of the Newtonian paradigm than do either Nadel or Hill.

The Dead Body as a Source of Knowledge

The pure scientific description of the state of McConnell's body carries within it non-scientific implications and inferences reminiscent of the concerns of the Aristotelian paradigm. It is perhaps relevant that Aristotle himself was a keen anatomist. Skinner asks Sarah to explain the process of saponification (to him and therefore also to the reader) whereby '"the corpse is turned […] into something akin to soap"' (128). It is interesting that the body of McConnell, a '"dirty old man"' (371) who was interested in young girls, was turned after death into something resembling soap, a cleansing agent. The saponification not only '"might have destroyed major organs"' but also cleansed the skin of any possible needle marks, or other evidence (28). This idea of cleansing has more to do with religion than science. Perhaps this demonstrates that within the Aristotelian (and holistic) paradigms, religion and science are not so separate.

Plain has pointed out the complex, often contradictory role played by the body in detective fiction (12). For example, it represents both the end of a life and the beginning of the story of detection. In terms of the Newtonian paradigm, the corpse offers the perfect example of Newton's First Law of Motion; that a body will continue moving in a straight line towards its goal unless acted on by another force which stops it. The victim's passage through life has been stopped.

At autopsy, the body itself becomes a source of information and evidence regarding its killing, evidence which is now revealed *inside* the body of the victim. Plain points out, referring to the work of Patricia Cornwell, that '[t]he corpse is reduced to a series of component parts' (16). During an autopsy, the human body is atomised in line with the

Newtonian view that the whole can be understood by an examination of its constituent parts, with the victim becoming little more than the sum of these parts. It has already been noted how Skinner's reaction to Leona's murder in *Skinner's Ghosts* challenges this view. Similarly, *Autographs in the Rain* challenges this viewpoint by emphasising the inability of the detailed examination of the physical remains of McConnell to reveal anything which might bring the case to closure. It is only when the physical evidence is considered along with an understanding of the personality of McConnell that progress starts to be made.

Despite a lack of conclusive forensic evidence, Skinner's '"gut feeling is that Mackenzie's right'" about its being a suspicious death (128). He searches the pathology report, looking for Newtonian scientific evidence to verify his suspicions. To this end, Skinner tells Sarah to '"[r]ead on, and let's see if we can help him prove it"' (128). He trusts his non-scientific gut feeling first, needing science only to verify his intuition. Sarah feels that it is '"[w]eird [that] there's no evidence of cerebral degeneration"' (129). She can deduce from this lack of evidence that McConnell was not suffering from dementia. In the hands of a skilled interpreter, the pathology report is as important for what is omitted as for what is included. Further, '"[a]nalysis showed bloodstream traces of temazepan"' although Dr McCallum reported no temazepam in the stomach (129). No syringe was found at the scene of the crime so Sarah wonders how the drug was administered. Sarah thinks that this discrepancy is something which Mackenzie should have noticed, but then he is not a skilled interpreter of scientific reports. Mackenzie admits that '"[t]he report was quite clear; I just misread it"' (141).

The Newtonian inspired information in the pathologist's report is incomplete without the correct interpretation. Facts alone are not enough to solve the case. Without the instinct of the holistic paradigm, the evidence as it appears to Sammy Pye, that '"the old chap seems to have taken some sort of seizure and died"' that is that the death was from natural causes, might have prevailed (23). However, by acknowledging the importance of instinct, for Skinner and Mackenzie, '"[t]he whole thing […] scream[s] "Suspicious Death" at both of us"' and the crime is recognised as such (30).

When Mackenzie revisits Dr McCallum to ask about the stomach content analysis, she is impatient at Mackenzie's lack of ability to see what for her, a trained interpreter of scientific evidence, would have been clear. She '"thought it was bloody obvious that if

there were no stomach traces of a drug, then it was introduced by some other means […]. Henceforth, every "t" will be crossed, and every bloody "i" dotted"' (140). Again, scientific evidence is only as good as the perceptive skill of the person interpreting it, or perhaps it is rather that the scientifically trained mind thinks within a different Newtonian scientific paradigm from the mind of the lay person.

Modern technology fails to protect Kath in life. However, after her death her essential being lives on, at least in the minds of others. Andy Martin tells Davidson '"We won't blame you for failing to work miracles, but there's a dead girl demanding that we do our best"' (284). The Biblical reference to 'working miracles' harks back to a pre-Newtonian world. Also of note is the idea of the dead girl 'demanding' that her killer be caught. This supports the holistic paradigm in suggesting that a person is not confined either within their physical body or within the time span during which they lived. A person's influence can carry on long after death. The dead have a voice beyond the grave. This point is also raised in Nadel's *Petrified* (2004) with reference to the rights of the dead Akdeniz twins. Neither do our responsibilities to a person end with their death: death is no longer viewed as a complete end. It is Kath's right to have her murderer caught. Plain points out that:

> [c]rime fiction depends upon an illusion: it categorically states that death can be confronted and explained. But such a premise is impossible. (245)

Imbuing the corpse with rights and expectations, both Jardine and Nadel seem to weaken the barrier between life and death. In that their detective fiction perhaps seeks to deny death as much as it attempts to solve it, both authors might be attempting to avoid Plain's paradox.

The Limitations of Newtonian Inspired Technology

In *Autographs in the Rain,* the police rely on Newtonian-inspired technology, initially trusting it as a valuable aid in the fight against crime. They are positive that it will keep Louise safe and would have prevented the thefts at the trout farms if it had been installed. And yet, on both counts, technology does not fulfil its promise: it lets the police down. Louise escapes death not thanks to technology but perhaps as a result of Aristotelian fate. She is away from the house when it is attacked. Louise herself attributes her escape to a power another than that of science, rather to the '"someone

[who is] watching over me"' (355). The cameras do not protect the trout farm or prevent the death of Kath as they are blinded by the headlights of her attackers' vehicles.

Davidson apologises '"I'm sorry […] there are limitations to this technology. Shining a bright light into the lens of a night vision camera will bugger it, for sure"' (288). Andy Martin enquires: '"Is there anything you can do to isolate and enhance that image, to get a face out of it?"' But Davidson replies: '"No, I'm afraid not […] I couldn't get the definition you need"' (288). The only use of the tapes is for what they *might* have shown. Andy Martin points out that: '"[t]he killer and his pals; they're not going to know they're useless, are they"' (288). Technology has proved almost useless. But, like the threat of what DNA testing might reveal in Nadel's *Dance with Death* (2006), the *threat* of what the tapes might hold has a power of its own. The killers don't know that the tapes are useless. They, like the police, might assume that the technology is up to the task. The assumption that the technology will deliver can alone be used to trick the criminals into confessing their crimes when they are caught.

Skinner's Method of Questioning and Science

Skinner's method of forming a hypothesis and arriving at a conclusion from close observation of the evidence owes little to Baconian scientific method. Dell, used to seeing the world from the viewpoint of the dominant Newtonian paradigm, is introduced to the possibility of looking at the world from a different viewpoint by her contact with Skinner. For Dell,

> just talking to him [Skinner] changed my outlook on a lot of things. We were trained to look for the obvious first and foremost; so was he, but once he sees it he questions it. […] [H]e'd turn up at a crime scene and ask himself a few simple questions. What type of crime was this? Was it opportunistic or was it premeditated? Was it driven by anger or financial gain? Was it a stupid crime or was it well planned? (194)

Asking these questions only emphasises to the two detectives that they know virtually nothing of real import. In this situation Skinner's method involved '" "look[ing] at the whole scene in a mirror"' (195). Instead of inspecting the house to see what is missing, Mackenzie and Dell, using Skinner's approach, look around the house to see if there is any thing there which should not be present. This method is far more successful. It is Dell, through her Aristotelian intuition, imagination and resourcefulness, who

eventually spots one vital piece of evidence. In the living room she finds a Video 8 cassette box. McConnell had no camcorder. This suggests to Dell that the mystery woman brought it with her in the large bag she was carrying.

The detectives' reasoning in this instance bears a close resemblance to that of Holmes regarding the famous incident of the dog in the night (Doyle 347) in 'Silver Blaze' (1892). For Holmes, the curious incident was that the dog did nothing: for Skinner what was curious was not what was missing, but what was inexplicably present. A similar situation arises in Jardine's *Stay of Execution* (2004) where, at the site of the hit-and-run accident Skinner notes that '"the most significant thing was what they didn't find [...] skidmarks'" (290). The absence of evidence is evidence in itself.

Summing up, the influence of the Aristotelian paradigm persists, in *Autographs in the Rain,* in the novel's limited acceptance of forms of knowledge other than the purely scientific. Vestiges of the old Aristotelian paradigm remain, for example, in Louise's feeling that someone is watching over her and Dell's sensing of the presence of pure evil in McConnell's house. It is also present in the detective team's acknowledgement of the importance of intuition.

The world presented in *Autographs in the Rain* is generally one in which total dependence on Newtonian inspired mainstream science and technology is shown as frequently inadequate. The technology, such as the surveillance systems set up at the trout farm and the recording equipment at the Balmoral Hotel, are, alone, unhelpful. It is Louise's eyes, human organs of observation, rather than any technological surveillance equipment, that spot the trout farm being used to hold the stolen trout which provides the evidence needed to solve the case. Technology also has its disadvantages in that it provides the criminal with another medium through which crime can be committed. It can open up the opportunity for the development of new types of Internet-based crime, such as the 'snuff' movie.

The fading Newtonian world is not one of excitement and achievement, but one of disappointment and frustration. However, while pure empirical science fails to fulfil its promises, the combination of knowledge systems in *Autographs in the Rain,* hints at a possible way forward towards a more inclusive, positive conception of knowledge.

***Death's Door* (2008)**

As discussed in Chapter 1, one implication of Newton's First Law of Motion is that space and time are absolutes. That is, they are unaffected by any other object. Newtonian motion occurs in a straight line through space and is measured in time. *Death's Door* was considered important to this study because of its interrogation of the Newtonian paradigm's conception of time, space and motion.

Secondly, *Death's Door* offers an examination of the role of the detective as an objective observer. It questions the Newtonian assertion that it is possible for any observer to be truly objective. Further, the novel offers an example of the effect of removing the role of the objective narrator as *Death's Door* is written almost entirely in dialogue. As such, the story is related through the eyes of the individuals directly involved in the case, the viewpoint changing with change of speaker. This technique results in the story being told solely from inside the investigation, serving to increase the involvement of the reader.

The Plot of *Death's Door* and Scientific Paradigms

The narrative starts with Detective Inspector Stevie Steele and the Head of CID Detective Chief Superintendent Mario McGuire examining the body of a girl which has been found on the beach. The body has been posed. Mario's comment that '"[s]he looks almost transparent" echoes Plain's suggestion that in detective fiction 'the corpse is looked *through* rather than *at'* (12). This is discussed at greater length later in the chapter.

At the scene, pathologist Aiden Brown carries out a brief examination. The appearance of the body reminds the detectives of the unsolved murder of Stacey Gavin, two months earlier. So whereas the narration starts with the discovery of the second body, the actual story reaches back into the past, starting with Stacey's murder, thus challenging the Newtonian view of time as moving solely in a forward direction. Rather, it supports the holistic paradigm's perception of time as being multidirectional. Both girls have been shot at point blank range, through the back of the neck up into the head. Because Stacey looked as if 'she had simply lain down to die,' the officers attending the scene assumed she had died from a drugs overdose or committed suicide (*Aftershock* 15). The autopsy which revealed that she had died as the result of a bullet wound was not carried out for

over twenty-four hours by which time possibly vital forensic evidence may have been lost.

The narration of the investigation into the deaths is interspersed with detailed domestic scenes involving the detectives. This illustrates the concept of the holistic paradigm that the world of the novel, mirroring the real world, is composed of intertwined strata of different types and depths of experience. The linking of the private and professional lives of the detectives is illustrated by their juxtaposition in the plot-structure of the novel.

At the beginning of Chapter Two McIllenney, now the husband of Louise, and their three-week-old daughter are having a meal with Mario McGuire and his wife Paula Viareggio. The detectives '"aren't allowed to talk shop"' (17). The two worlds of work and family life are best confined within their Newtonian divisions. These domestic scenes illustrate the importance and value to the detective of his private life while showing the difficulties of trying to keep it separate from his role as a detective. The domestic scene of Chapters Two and Four is separated by the brief Chapter Three set in the mortuary gallery where the autopsy on the murder victim is about to begin. The domestic scene of Chapter Two and Chapter Four not only demonstrates the value of the domestic sphere to the detective but provides a dramatic contrast to the horror and sadness of the mortuary. The importance of maintaining Newtonian barriers is illustrated by the obvious benefits of confining the home and the mortuary within separate chapters. Although the two scenes are occurring simultaneously the contrast between them could not be more obvious.

Steele's wife, Superintendent Maggie Rose, is pregnant rather late in life with their first child. At the end of Chapter Five Maggie is contacted by her consultant who needs to see her urgently. Maggie's pregnancy is discussed at greater length later in this chapter.

Through forensic analysis of the stomach contents of the dead girl, and the evidence of a bus driver who remembers her, she is identified as Zrinka Boras, an artist like Stacey and the daughter of a wealthy Bosnian businessman, Davor Boras. Zrinka was last seen on a bus in the company of a young man, both carrying camping equipment.

The sniffer dogs found the body of the young man, later named as Harry Paul in bushes above the beach. In sharp contrast to the peaceful, angelic body of Zrinka, Harry Paul's body had been 'dragged naked for two hundred yards, before being left, jammed between two bushes, food for scavengers' which had chewed his face, genitals and limbs down to the bone in places (135).

Zrinka's mother tells police of a relationship Zrinka had had with Dominic Padstowe. The investigation begins to make connections between the dead girls reflecting the importance of holistic interconnectedness. Stacey had also had a relationship with the same man. As fellow artists Stacey and Zrinka had known each other, but had fallen out over Padstowe. The two girls also shared a friend, a hairdresser called Amy Noone. Searches for Padstowe reveal nothing: he does not exist.

Realising that Amy might be in danger as she could not only recognise Padstowe, but could link him with the two dead girls, detectives arrive at Amy's flat too late to prevent her murder. Padstowe is finally identified from the picture Stacey had painted of him, as an investigative journalist called Daniel Ballester who was trying to '"dig the dirt on the dealings of Davor Boras [...] and there was dirt in plenty"' (*Aftershock* 17). Ballester is traced to Hatherway House, a cottage in Wooller, Northumbria. Stevie Steele reaches the cottage before reinforcements from the local police. Seeing Ballester hanging from the ceiling, Steele goes in alone. The door had been booby trapped with a grenade and Steele is killed.

It is not until this point in the story that Skinner joins the inquiry. Skinner is officially on a sabbatical. At an earlier news conference Davos Boras had implied that he would deal with Zrinka's killer if he got to him before the police. Skinner believes that Boras was responsible for the deaths of both Steele and Ballester. Ballester has apparently left a confession to the four murders on his lap top. Trophies, such as Zrinka's sketch-book, are found in the cottage along with the gun used to carry out the murders. Steele had not been convinced of Ballester's guilt; neither is Skinner.

In conversation with his young son Jazz, Skinner tells how he believes that:

> it's essential for a detective to have a picture in his mind of that crime, of how it looked as it was committed, from start to finish [...] to be able to look at it inside his head and to see everything that happened, to understand every part of

> it [...] [s]ometimes you look at a film in your head and even though everything does fit [...] you know that it isn't, quite, how it was. [...] You can't see anything wrong, because there's nothing to see, but you know that there's more, there's something that you haven't been shown yet, but it's there. It's something we call instinct. (*Death's Door* 407)

What Skinner says here is significant because it shows just how instinct works within Skinner's detecting process. Skinner does not trust the Newtonian paradigm inspired forensic evidence exclusively: he will always put his instinct first. Skinner places great store by the reanimation of the events leading up to the crime. He needs to view the crime as a holistic process rather than as a static event. There is no forensic evidence to suggest that things at the cottage are other than as they appear, and yet Skinner is far from happy. The limitations of the forensic evidence are considered in greater depth later in this chapter.

Skinner is convinced that Boras killed Ballester or had him killed. It might be possible that the culprit is Drazen, Boras's son. He was supposed to be flying from JFK Airport to Heathrow and then on from Heathrow to Edinburgh at the time of the killings at Hatherway cottage. Newtonian-inspired CCTV footage reveals, however, that whereas it was Drazen who flew the JFK Airport to Heathrow leg of the journey, it was not the same man who flew from Heathrow to Edinburgh. DNA samples from Drazen's shaver match the DNA from the sample of skin found at Hatherway Cottage. The story ends without real closure. Drazen has fled to America, so his guilt cannot be proved or disproved.

The Human Body as Transparent

The novel opens with Detective Chief Superintendent Mario McGuire commenting on the appearance of the dead body found on the beach at Gullane that '"[i]f there are such things as angels […] that's what they look like"' (1). He thinks '"[s] he looks almost transparent"' (2). Due to the similarities between this body and that of Stacey Gavin, found two months previously, the investigation is named 'Operation Gabriel' (88). Rather than presenting a picture of decay and horror, the body on the beach has a kind of serenity as she 'lay on her back on the yellow sand, her face serene, framed by blond hair [with] her pale lips set in what might almost have been a smile' (1).

As there is no identification present on the body of the dead girl, an 'artistically improved' photograph of the body is released to the *Evening News.* On seeing this photograph, Skinner's daughter Alex comments that '"nothing can truly restore life, once its life has been extinguished"' (50). Alex would seem to refute the claims of the Newtonian paradigm that the whole can be known through an examination of its parts. Alex clearly supports the holistic paradigm in regarding the human body as more than the sum of its parts. The dead body might have the same physiology as the living, but once the life force, indefinable through Newtonian science, has left the body, the human being has gone. Recognising the fundamental difference between a dead and a living body, Alex is disturbed by the whole process of trying to make the dead girl look still alive. After all, as Alex says: '"[s]he's bloody dead!"' (49). There is an interesting connection here with the embalming of bodies to preserve their life-like appearance in Nadel's *Petrified* (2004) discussed in Chapter 5.

Zrinka's angelic, transparent quality remains associated with her throughout the novel. She is frequently linked with unworldliness or otherworldliness. Her Aristotelian ethereal quality affects not only her but all those with whom she has contact, both before and after her death. For example, when Alex first examines the photograph in the newspaper, she is sure that she recognises the dead girl. Alex's remembrance of where she had seen the girl 'came to her as if an unseen hand had swept a curtain aside. In that instant she was somewhere else as a scene replayed itself in her mind' (109). Similarly, when Steele enters the tent in which she had been camping with her boyfriend he 'felt her presence inside, almost tangibly: it was as if she was haunting the space in which she had spent her last night on earth' (119). He even 'whispered to the dead girl's spirit' (119). Zrinka cannot be equated with the Newtonian concept of a discrete particle, moving in empty space. In metaphorically 'moving' all she touches, she demonstrates the influence of the Aristotelian paradigm.

The Autopsies of Stacey Gavin and Zrinka Boras

The autopsy must adhere to strict rules of procedure also characteristic of the Newtonian paradigm. A complete picture of the body has to be built up because '"by the time the thing comes to court there just can't be any questions that it [the autopsy report] can't answer"' (21). In Chapter Three, then, the reader learns that the purpose of the autopsy is more than to establish the cause of death; it is to present a complete

picture of the body at the time of death. The autopsy should render the body transparent, to see through it to the bigger picture of the victim's life both before and at the time of death. Further, the function of the autopsy might be seen as trying to reanimate it, to recreate the life of the victim before death. This quality of 'reaching back' of the autopsy is mirrored in the plot structure by the way the investigation reaches back from the discovery of the body of Zrinka to the murder of Stacey. This challenges the claim of the Newtonian paradigm that time moves in only one direction.

Plain has noted how the body in detective fiction is 'confined to the margins – carried off in the opening pages and safely translated into symbol' (Plain 12). Yet, in *Death's Door*, rather than demonstrating Newtonian separation and division from the main body of the text, the bodies of the two girls act as gateways to knowledge. It is by looking through their bodies that a picture of their lives can be built up right up to the time of their deaths enabling the killer to be identified. The bodies demonstrate the holistic paradigm's concept of integration in that they are an essential part of the story and of its solution. And yet, on another level the girls' dead bodies might represent an ending or transmutation of the past role of women as the 'angel of the house'.

It is worth noting here the allusion at the opening of Chapter Three describing Stacey's autopsy, to King Arthur. King Arthur is also alluded to in John Creasey's *Inspector West Alone* (1950) discussed in Chapter 2. The reference to Arthurian legend recalls the pre-Newtonian world of myth and legend which once more gains credence within the holistic paradigm. However, the Arthurian reference is a bad joke of Steele's, possibly demonstrating the contempt with which the Newtonian paradigm views all, including myth, that it not scientifically verifiable. Perhaps Steele should not have been quite so cynical at this autopsy, or so disrespectful of myth, legend and the concept of fate associated with it within the Aristotelian paradigm. By the end of the novel he too is dead.

Furthermore, it is significant that, in the case of Stacey, the fact that she was murdered did not become obvious until more than twenty four hours after her death. This is interesting as it reveals strata hidden within strata. Not only are the identity and motive of the murderer hidden, the fact of the murder itself is also hidden. The girl's dead body holds within it complicated layers and levels of mystery which, initially at least, are inextricably interconnected. Stacey's dead body might perhaps act as a metaphor for the

depths and complexity of the stratification of knowledge within our society acknowledged within the holistic paradigm. Contemporary society perhaps, like the fictional detective, seeks to unravel these in an attempt to better understand the world in which we live. This is similar to the situation in *Autographs in the Rain,* where it is at first uncertain whether McConnell has been murdered.

In this aspect, Jardine's work differs from that of Hill. In Hill's novels, for example, in *A Killing Kindness,* there is never any doubt that murder has been committed. However, as will be discussed in more detail in Chapter 5, the fact of murder in the work of Nadel is not always initially obvious. For example, for some time in *Deadly Web* (2005) it is not know if Max has been murdered.

Maggie's Pregnancy as Paradigmatic

The story of Maggie's pregnancy and the dilemma of her having cancer unfolds gradually, as if in Newtonian real linear time. We first learn of her pregnancy in Chapter Five. In Chapter Ten Maggie prepares to hand over to Detective Superintendent Mary Chambers who will be acting Divisional Commander while Maggie is on maternity leave. Maggie has been a high-flying career policewoman until, sitting in her office:

> she felt her daughter kick inside her. In that instant, she saw her world from a completely different perspective, as she always did when she was reminded of the awesome thing that she and Stevie had achieved. (65)

Even after her cancer has been diagnosed Maggie had 'never felt so fulfilled in [her] life' (365). Pregnancy, rather late in life, has caused Maggie to change the way she views the world. She has come under the influence of the Aristotelian paradigm's concept of settlement. With the husband she loves and their child she has reached the position in life which she finally feels is right for her. As a result, she announces as she goes on maternity leave that she will not be returning to police work after the birth. However, also in Chapter Ten, she receives an ominous phone call from her consultant requesting she visit him that day.

No sooner than she settles into her safe, secure Aristotelian world, that world is threatened with destruction. In Chapter Twelve, Maggie learns that her second scan has revealed a shadow on her right ovary. Her consultant, Mr Alfred Fine, discusses in

detail the options open to her. Maggie contacts her sister Bet in Australia, with whom she has not had contact for years to discuss if there is ovarian cancer in the family. Whilst waiting for the results of her scan Maggie hopes that the Newtonian-inspired technology is wrong, that '"it was a simple mistake, a misleading shading caused by the technology that had spotted it"' (165), but she is not so fortunate.

In Chapter Thirty-eight Maggie prepares for an MRI scan which it is hoped will reveal more details regarding her condition. The chapter relates the process of the scan itself and contains more passages told by an objective narrator than any other chapter in the novel. This gives the process a sense of distance which parallels a passage much earlier in the book where Neil McIllenney discussed Mrs Gavin's reaction on learning of her daughter's death. Neil comments how '"[p]eople have an off switch […] There are things that … we react when we're told, but inwardly we refuse to countenance them until we've seen the truth"' (27). Maggie's MRI scan renders her body transparent. In revealing her cancer the scan not only exposes her physical condition, but also lays bare her innermost fears, desires and wishes. The reader can not only see inside her body but inside her soul, her very being also.

The replacement of dialogue with an objective narrator is a metaphor for Maggie's having switched off her subjective emotions. She, like the mother of the dead girl, will not countenance the possibility of having cancer until the technology (which she hopes is at fault) reveals the truth. Maggie and Mrs Gavin are in similar positions. If the Newtonian scan does prove her to have cancer, her as yet unborn daughter may die as Mrs Gavin's daughter died. There is a deeper, darker link here. Mr Fine has suggested that Maggie terminate the pregnancy, killing the foetus, if cancer is confirmed (219). Mrs Gavin's daughter was also killed.

However, when cancer is confirmed, Maggie follows the dictates of her heart, not the Newtonian logic of her consultant. She decides to continue with the pregnancy as long as possible, giving her daughter a better chance of survival. In doing so she decreases her own chances of surviving the cancer, delaying treatment until after the birth. Her readiness to sacrifice her own life to increase the likelihood of her daughter surviving owes nothing to Newtonian science, logic or reason. Maggie's decision may be thought

of as resulting from animal instinct to protect one's offspring or may be the product of human qualities and emotions which lie outside the realms of science, such as love.

Death's Door offers no closure regarding the outcome of Maggie's pregnancy and her cancer. In Chapter Eighty-one, the last chapter of the book, Maggie learns that the baby can be safely delivered in two weeks' time, when she will weigh four pounds.

Newtonian Inspired Forensic Evidence

Detective Inspector Dorward's Report on Hatherway House

Apart from the fingerprints of Steele and the police officers who rushed to his aid, the only prints in the cottage were those of Ballester, which were everywhere. The grenade was set off by a carefully constructed Newtonian mechanical system. The wire which pulled the pin from the grenade was attached to the door handle and held in place by four eyelets. The four eyelets were completely free of fingerprints. Whoever fitted them had been wearing gloves. This raised the question as to why someone who was about to commit suicide would wear gloves. It could not anyway have been Ballester, as no gloves were found in the house. It is not the forensic evidence here which is important, but its complete absence. Skinner reiterates to Dorward what Dorward has told him thus:

> "You're suggesting, on the basis of no concrete evidence, indeed on the basis of complete lack of such, that Daniel Ballester's suicide was staged, and that the person who killed him then rigged the grenade that Stevie walked into". (417)

Either that, Dorward agrees, or, less likely, someone entered the house after Ballester had committed suicide and rigged up the grenade. The perpetrator would have had to hook the wire round the door handle from outside the door through the letter box. Dorward tried this himself and skinned his knuckles in the attempt. In examining how he had done his, he discovered another piece of skin which he bagged for DNA sampling. Skinner and, surprisingly, the scientific officer Dorward, by their drawing of conclusions from the *lack* of forensic evidence are rendering that evidence transparent. They are looking through the forensic evidence to determine the truth, not directly at it. This transparency corresponds with the transparency with respect to Zrinka's body and Maggie's scan.

The pathologist's report on Ballester's body draws attention to a depressed skull fracture and two accompanying small burns. While the pathologist can only speculate whether the fracture was caused by the officers who cut him down, Skinner has a different theory which also accounts for the burns. Skinner's practice of running a scene through in his imagination, noted in *Skinner's Ghosts,* shows him Ballester opening the door to someone he knows '"and the newcomer zapping him […] with a stun gun"' (420). The pathologist's detailed examination, following the Newtonian derived rules for an autopsy, is unable to prove this as she fails to use, or her job does not require her to use, intuition or imagination.

It is not the actual forensic evidence here which is important, but the correct interpretation of its absence. On the one hand, Skinner's intuition and his habit of reliving a scenario in his mind seem to owe nothing to the concepts of the Newtonian paradigm. Yet on the other hand Skinner's viewing the bare, static facts of the crime as a film imbues them with the motion which is central to the Newtonian world. It is when the inert, solid, concrete facts are brought to life through movement that they start to mean anything useful. The addition of movement reanimates the static Newtonian facts of the case, redefining it as a holistic process.

The sequel to *Death's Door, Aftershock* (2008) immediately brings into question the limited conclusions offered at the end of *Death's Door*, as its plot continues and develops the main storyline of *Death's Door.* This immediately reduces the limited closure reached at the end of *Death's Door* further as its plot is no longer bounded by the novel's covers but extends into the next book, turning it from a series of novels into a serial novel.

Contemporary detective fiction has generally seen an increase in the number of characters who reappear in subsequent novels in the series. In Hill's novels for example, as well as members of the detecting team and their families, characters such as the psychiatrist Dr Pottle, feature in several novels. Similarly in the work of Nadel, Gonca the gypsy makes appearances throughout the series. The return of such characters illustrates the holistic concept of interconnectedness. It is an interesting development in *Death's Door* and *Aftershock* that even the plot line of one novel should be continued in another.

The influence of the Aristotelian paradigm in *Death's Door* is seen firstly in its effect on Maggie when she becomes pregnant. She recognises that her rightful place is at home beside the man she loves looking after their child. But Aristotelian settlement is fragile and for Maggie, is soon shattered by the murder of her husband and the discovery that she has cancer, which threatens her unborn child as well as herself. The influence of the Aristotelian paradigm is also present in the depiction of Zrinka as angelic, possessing qualities which lie outside the confines of Newtonian science.

The holistic paradigm's web-like connectedness of the different plot lines creates great difficulty for the police officers in determining exactly which events belong to which case. The dissolution of Newtonian boundaries is shown as creating confusion. Ballester, whilst using the alias Dominic Padstow, has relationships with all three murdered girls. His dual identity adds to the evidence against him and he is sought as their murderer. At the end of the story he has either committed suicide, or, more likely, been murdered by Drazen Boras, brother of the murdered Zrinka in revenge. The evidence points to this conclusion and seems logical. However, the wrong connections have been made, the wrong pathway through the web followed. Ballester has been murdered because he was a journalist investigating irregularities in the business dealings of the Boras's empire. His murder is unrelated to the four killings.

In Conclusion: Scientific Paradigms and the Work of Quintin Jardine

One concept of the Aristotelian world which is still portrayed as a positive influence is the idea of settlement, particularly in personal relationships. Skinner's rightful place, the only place where he was truly happy, was with his first wife Myra. Since her death Skinner has had various unsatisfactory relationships, the most notable of which was with Sarah, with whom he had a son, Jazz. But the marriage comes under increasing pressure, Sarah realises that she cannot replace Myra and that Skinner cannot let Myra rest in the past. In *Skinner's Ghosts* they are separated and Sarah has returned to her native America. Skinner's resultant loneliness leaves him vulnerable to Pam Masters' deception.

The novels generally acknowledge that a paradigm shift is taking place. This shift is away from the security of the Newtonian world, where the characters' spheres of influence were contained within Newtonian boundaries, towards a world where the lives

of the characters all inhabit one integrated, holistic world and so form part of the same dynamic system. Every occurrence within such a world, including the actions of all the characters, is affected by, and in turn affects, everyone else and everything else within it.

This holistic interconnectedness is not portrayed in a positive light. It is shown as having profound consequences, usually negative, for all the characters, but especially for Skinner. Skinner is vulnerable, for example to Pam's attempt to ruin him. This is not new in detective fiction, however. Inspector West, in Creasey's *Inspector West Alone* discussed in Chapter 2, is also vulnerable. However, unlike West, Skinner is not just sucked into the world of criminality. Rather, by overstepping the Newtonian bounds of propriety within his personal life he creates the conditions in which crime can actually flourish.

The influence of the holistic paradigm is apparent in the integration of the classic detective fiction model within the political, social, personal and professional world which forms the backdrop to the novels of Jardine. The crime no longer demonstrates Newtonian separation and isolation from the implied real world of the novel, but is an integral part of it. The backgrounds against which the novels are set are no longer static, but form an integral part of the plot.

Within the holistic paradigm the world is considered as an open-ended system. The lack of closure at the end of *Death's Door* presents an example of such open-endedness. Not only is the reader no longer offered the security of knowing that all will be well in the end, the existence of any definite end itself is challenged. *Death's Door* appears to end leaving the reader secure in the knowledge that Drazen Boras is at least responsible for the murders of Steele and Ballester, even if he did not commit them himself. However, whereas the book might end here, the story continues in *Aftershock* by questioning this very security.

The world of Jardine's novels, whilst retaining many characteristics of Golden Age fiction discussed in Chapter 2, such as its game-like quality and its invitation to the reader to join in with the solving of the crime, looks towards a more holistic age with trepidation. Jardine's world is one in which the crime is no longer safely contained and separated from the 'real' world of the novel, but is inextricably integrated within it, even

to the extent that the detective himself falls under suspicion, however briefly. The reader can no longer regard the events of the novel as being separated from his own existence, but rather as forming an integral part of it. The reader is no longer shielded from the disturbances, threats, uncertainties and fear enacted within the novel.

The removal of the objective third person narrator, to be replaced mainly by dialogue in *Death's Door,* changes the role of the objective reader to one of silent listener. The detective story thus gains immediacy akin to that of a 'fly-on-the-wall' documentary. As the forensic facts are shown to require correct interpretation, for example at the scene of Ballester and Steele's death in *Death's Door,* the reader as listener must also employ active interpretative skills. The role of the detective in interpreting the evidence therefore becomes analogous with that of the reader interpreting the narrative. The similarities between the detective as scientist and the reader both as collectors of scientific facts and objective clues and evidence in earlier examples, is here echoed in the relationship between detective as interpreter of scientific facts and clues and the reader as interpreter of the text.

The holistic integration of the reader within the story as silent listener draws the reader into the action within the 'real' time of the novel. The Newtonian temporal barrier which separated the reader from the action of the novel in time is thus also removed. The reader is present within the action as it occurs, not reviewing it at a safe distance some time later when the outcome is already known.

At the beginning of her book *A New Modernity? Change in Science, Literature and Politics* (1999) Wendy Wheeler notes that a characteristic of modernity is 'an essential melancholic response to the loss of traditional beliefs' (8). For Wheeler 'postmodernity restages cultural grieving in all its potential aspects, but at a new level of intensity' (8). This cultural melancholy is reflected in the Skinner novels as a deeply rooted sense of loss and mourning. Skinner mourns the death of his first wife Myra and his friend and one-time lover, Leona, in *Skinner's Ghosts*. He also grieves at the failure of his marriage to Sarah and misses his son, Jazz. His trust is betrayed by Pam Masters. He even mourns for the loss of his old self as he dislikes the person he has become. By engaging in a relationship with Pam he is trying to move on into the future, only to be held back by the traditional (hypocritical) morality of both the police and the public.

Similarly, in *Death's Door*, the women killed are likened to angels. Wheeler notes the nineteenth century image of woman as 'the angel in the house' (1999: 10). The murder of angelic women may be seen as a metaphor for the death of both angelic femininity and the traditional role of women within society. The dead bodies of the women had to be *posed* as angels by the murderer, they were not naturally angelic. He killed them to preserve the elusive quality of their beauty, to prevent them changing, or perhaps in an attempt to stay the change or progress of women within today's society generally. The idea of killing the young to prevent them having to experience physical decay is an important recurrent feature of the work of Nadel examined in the following chapter. Perhaps in mourning the girls, the reader is being encouraged to mourn the death of old values which, whilst restrictive in one sense, could equally well be felt as supportive.

In short, what Jardine contributes to this study is evidence of a constant testing and straining of the boundaries of the classic detective fiction form, whilst remaining fundamentally within its confines as discussed in Chapter 2. Jardine's work stresses the importance of stability, of the self, within one's personal and professional life and of the maintenance of the status quo. However, Skinner is constantly pushing the boundaries of the acceptable. The novels demonstrate holistic integration of the detective fiction narrative within the real world of the novel, producing a certain unease, insecurity and lack of satisfactory closure. This recognition and fear of uncertainty, brought about by the dissolution of Newtonian barriers and the lack of security brought about by holistic interrelatedness is developed further within the work of Nadel studied in the following chapter.

Chapter 5

Towards a New Holistic Worldview: The Detective Fiction of Barbara Nadel

Born in London, Barbara Nadel now lives in Essex whilst regularly visiting Turkey, which provides the setting for her series of detective novels featuring Inspector Çetin İkmen. Nadel published her first book in the series *Belshazzar's Daughter,* in 1999. Her most recent book, the eleventh in the series, *River of the Dead* was published in 2009. This chapter will concentrate specifically on *Petrified* (2004), *Deadly Web* (2005) and *Dance with Death* (2006). The reasons for choosing these three novels specifically will be discussed at the beginning of the appropriate section of this chapter.

The detective fiction of Nadel is important to this study, because through the diversity of her background, she personifies the interaction of Aristotelian and Newtonian elements within the new holistic world view. This interaction forms a fundamental aspect of her detective fiction. Nadel is both a trained psychologist and has a longstanding interest in magic and the occult (personal email 16 January 2007). Her background is not initially, therefore, a literary one.

Before becoming a full-time writer, Nadel worked as a Public Relations Officer for the National Schizophrenia Fellowship and as a mental health advocate in a psychiatric hospital. Nadel's life-experience is relevant here because, firstly, through her training as a psychologist, she would have gained an insight into the scientific method and model of thought representative of the Newtonian paradigm (Lauer 1).

In *Nicomachean Ethics* (c. 350 BC), Aristotle emphasised that 'each man judges well what he knows [...] he is a good judge who has been instructed in it' (*Ethics* 3). Secondly, therefore, Nadel's Aristotelian prior knowledge, understanding and real-life experiences as a psychologist inform her writing, enabling her to write with some authority on a diversity of psychological states. A good example is her portrayal of the challenging character of Max in *Deadly Web.*

Nadel's interest and training in various aspects of the occult and magic harks back to an age dominated by the Aristotelian paradigm within which a sensitivity to psychic

phenomena was accepted as a valid element within human experience. Thirdly, therefore, Nadel's work is relevant to this study because of its promotion of non-empirical ancient knowledge such as psychic power, religion, myth and magic (as recognised by the Aristotelian paradigm) and because of the importance her work attaches to such systems in the twenty-first century.

A crucial issue for Nadel's writing is the range of possibilities delineated by the terms 'fact' and 'belief', for example in presenting Kabbalism, which many might regard as a belief, as a fact. The first use of the word 'fact' in 1539, noted in the Oxford English Dictionary, gives its definition as '[a] thing done or performed' with no mention of the need for proof. Lee Worth Bailey in his book *The Enchantments of Technology* (2005), however, comments that

> The word "fact" has been asked to carry the weight of the authority of the world of objects. In theory, a fact is information known with certainty, objectively verified, having real, demonstrable existence (44).

In the pre-Newtonian world, then, a 'fact' was a far broader and more open-ended concept than it is today. It is arguable, then, that the Aristotelian paradigm regarded a 'fact' as a far more subjective entity than it was considered to be within the Newtonian paradigm which regarded a 'fact' as an indisputable objective truth.

A 'fact' is understood within *Deadly Web* especially in its pre-Newtonian definition, not as an objective, provable truth. A 'fact' has a fluidity and a certain ambiguity which does not align it with the Newtonian paradigm.

'Belief' is defined as [t]he mental action, condition or habit, of trusting to or confiding in a person or thing: trust, confidence, faith' (Oxford Online). In *Deadly Web*, Nadel might be interpreted as offering a dramatization of the effect of reversing the status of 'fact' and 'belief' as recognised within the Newtonian paradigm. For all the major characters in *Deadly Web*, Kabbalism takes on the status of fact in that it is undeniably true.

Another point of interest is the manner in which Nadel's work frequently illustrates concerns expressed by Wendy Wheeler. For example, while recognising a close relationship between science and myth, Nadel does not believe that 'science simply supersedes magic', but rather that the two can exist side-by side (Nadel, personal email, 16/01/2007). Wheeler makes the same point asserting that 'scientific knowledge is

contiguous with sacred knowledge and with the desire ever to reach further towards the 'more to be known' (96). Nadel herself stated in a radio interview that: '"a lot of my books have got this magical edge to them, but a lot of the magic is science"' (Open Book BBC Radio 4, 11/12/2005). Nadel's linking of science and magic is also echoed by Wheeler for whom 'science [...] is the most powerful way of doing magic [...] that we have thus far discovered' (96). Wheeler's research into the relationship between culture, nature and the whole human being and Nadel's fiction frequently seem to share a similar viewpoint and goal: 'to explore the relationships between these different ways of knowing in order, hopefully, to better understand them' (Wheeler, 2006: 80). Further illustrations of the similarities in thought between Wheeler and Nadel are noted throughout this chapter.

The primary purpose of this chapter is to identify aspects of the Aristotelian, Newtonian and holistic scientific paradigms within Nadel's İkmen series. Moreover, this chapter aims to investigate how her position regarding these paradigms challenges or supports the position adopted within the work of Reginald Hill and Quintin Jardine. Whilst acknowledging the limited importance of intuition within the armoury of the fictional detective, Jardine's Bob Skinner novels are clearly set within the Newtonian paradigm (see Chapter 4). The work of Hill, on the other hand, stresses the importance of combining and balancing the scientific and psychic areas of human experience. However, the world in which Hill's detectives work is nevertheless still firmly set within the Newtonian paradigm (see Chapter 3).

This chapter will show how Nadel's work, in contrast, presents a world in which psychic power and experiences are dominant. In Nadel's fictitious world Newtonian science plays a very limited part, rarely of use to the detective other than as a means of ascertaining the cause of death by post-mortem examination. Nadel's fiction is set in a world which favours a more holistic worldview, and examines the benefits and drawbacks of adopting this position.

Aspects of the Aristotelian, Newtonian and Holistic Paradigms and Nadel's Fiction

One of Nadel's primary concerns expressed through her detective fiction is the concept of Aristotelian and holistic wholeness. Aristotle considered the whole of primary

importance, valuing it over the parts of which the whole is composed, because 'it is whole entities that are more intelligible to the senses' (*Physics* 9). Aristotle linked the whole with the general and so advocated 'progress from the general to the particular' (*Physics 9).* This is in opposition to the Newtonian reductionist principle that an understanding of the whole could be reached through study of its parts (see Chapter 1). Nadel enters into the debate between these two opposing viewpoints particularly in *Dance with Death, Petrified, Deadly Web* and *River of the Dead* (2009). For example, in these four novels Nadel considers the nature of the human being, especially the usefulness of Newtonian reductionism in attempting to identify a person solely by their physiology and genetic make-up, whilst denying the importance of their soul qualities.

By extension, her work examines issues relating to identity, not just of individual characters, but also of the cities and cultures which they populate. She investigates, for example, the limitations of Newtonian division, such as by race, gender and religion, in determining identity (discussed in more detail later with reference to *Dance with Death)*. Nadel questions the degree to which the identity of physical locations and cultures relies on Aristotelian concepts of atmosphere, history, myth and legend to establish for themselves a coherent identity. This is particularly relevant to Deadly *Web*, *Dance with Death* and *River of the Dead*.

Another area of interest discernable within Nadel's fiction is the importance of non-empirical knowledge systems as recognised within the Aristotelian and holistic paradigm. Her fiction is set in a world where acceptance of myth, intuition, magic and religion is commonplace. İkmen's world is one in which these pre-Newtonian knowledge systems are valued for the contribution they make to human knowledge. Unlike the demands of the Newtonian worldview, it is not necessary to understand their workings to benefit from the insight they allow. A good example of this is Max's psychic power in *Deadly Web.*

As discussed in Chapter 1, the Aristotelian and holistic paradigms privilege motion and interaction over stasis. Nadel herself, in her movement between and within cultures, exemplifies this. While Nadel's fascination with Turkish history and her understanding of the culture informs her plots, it is the relationship between the pre-Newtonian world, represented by aspects of ancient Turkey and the modern Newtonian world view which is of particular interest to her. Living alternately within the two very different cultures

of Turkey and England Nadel epitomises the holistic paradigm's interest in integration and interrelatedness. She is uniquely placed to investigate the wholeness of human experience, highlighting the similarities between human lives whilst fostering an interest and appreciation of Turkish culture in her readership.

Nadel and the Concept of Science within the Aristotelian and Newtonian Paradigms

As discussed in Chapter 1, the notion of science within the Newtonian paradigm eliminated all knowledge which could not be verified by Baconian method. It required the amassing of concrete, irrefutable, facts and the proving of laws. Aristotle's *Metaphysics* (c. 350 BC) discusses the vast range of the Aristotelian science, including, for example, the science of 'being as being' (4.1) and 'divine science' (1.2). Aristotelian science is therefore allied to the holistic paradigm in that it encompasses the whole of human experience including non-empirical knowledge, such as intuition, rejected by the Newtonian paradigm. Aristotle considered intuition one of the highest forms of perception. Nadel's work seeks to address this rejection by re-establishing the role of non-empirical knowledge systems as a means of extending our current understanding of the universe.

Also discussed in Chapter 1, scientific inquiry within the Aristotelian paradigm required the practitioner to first study the work of his predecessors and then, through a process of further observation, recording and explanation, to arrive at a conclusion through logical deductive reasoning. Within the Aristotelian world view, the acquisition of knowledge grew slowly: it was a process. Wheeler similarly points out not only the processual nature of science (science as a process) but how its processual nature links it with religion (99). This is particularly relevant to the work of Nadel, bearing in mind her interest in both different types of religion and science mentioned earlier.

Dr Arto Sarkissian, the series pathologist, employs the quantifiable techniques and methods of the science characteristic of the Newtonian paradigm. İkmen, on the other hand, employs the scientific mode of thought characteristic of the Aristotelian paradigm as exemplified, for example, by *Harem* (2003). *Harem* contains within it elements of the traditional 'locked-room' mystery, linking it with early examples of the genre, such as Edgar Allan Poe's *The Murders in the Rue Morgue* (1841). The head of the

kidnapped Kaycee Silvas inexplicably appears in a box in her husband's bedroom and Kaycee's two brothers mysteriously disappear from the house whilst it is under strict police guard. The house is a wooden construction so can contain no hidden passages. We learn that 'the mystery is driving him [Constable Yildiz] insane, like the rest of us' (*Harem* 204.). İkmen knows of the series of cisterns and tunnels, which run under Istanbul. He forms a theory that one of these tunnels must run under the house and searches for evidence of how it could be reached. He discovers that what appears to be a recessed window is in fact a lift to an underground passage.

İkmen makes this discovery through pure logical reasoning characteristic of the Aristotelian scientific paradigm. He arrives at the correct conclusion through a process of mind, not by following tangible, concrete physical clues as would be required within the Newtonian paradigm. This is unusual for İkmen, the son of a psychic, who more frequently solves his cases through intuition, his 'witch's sense' (*Harem 20).*Whereas intuition is perfectly acceptable within the Aristotelian paradigm as a source of knowledge, Aristotelian thought did require that all knowledge be systematic and unified. This is clearly demonstrated by the precise way Aristotle explains his method of reasoning in both *Prior Analytics* (c. 350 BC: 1.1) and *Posterior Analytics* (c. 350 BC: 1.2).

Apparently, 'İkmen was a technophobe' (*Deadly Web* 48) who did not understand Newtonian science and technology and who had difficulty in operating his mobile phone. Yet it is his Aristotelian scientific attitude and frame of mind; the use of observation (of the disappearing brothers) and knowledge (of the network of passages) to form a hypothesis through logical reasoning (that cisterns may run under the house) that leads İkmen to the solution.

The influence of the objective, rational, empirical, measurable and quantifiable science of the Newtonian paradigm and of Newtonian-inspired technology is generally of very little importance in Nadel's work. With the exception of *Deadly Web* (discussed in more detail later), the Newtonian scientific paradigm has very little influence on the development of the plot, the solution of the crime, the characters or the world they inhabit. Nadel's world is one which is far from being scientifically dependent. Where Newtonian science and technology does occur its influence is generally shown in a

negative light. In *Deadly Web*, for example, forensic science cannot determine if the blood in Max's apartment is his (discussed in more detail later).

Aristotelian Influences on Newtonian Technology

In Book VI of *Nicomachean Ethics* Aristotle described five virtues associated with the rational soul: *techne* (art or craft), *episteme* (scientific knowledge), *phronesis* (practical wisdom), *sophia* (philosophical wisdom) and *nous* (intuitive reason) (100). It is the first two which are of particular relevance to this chapter. Although Aristotle's use of these terms is not always consistent, simply, *techne* deals with change and with practice and can be translated as 'craft' or 'art'. *Episteme*, on the other hand, relates to pure scientific theoretical knowledge of objects that are eternal and cannot change.

However, in Aristotle's time these two concepts were not as distinct as they are today. Aristotle recognised a relationship between *techne* and *episteme* in that *techne* or craft itself was practice which involved some degree of *episteme* or theoretical understanding (*Ethics* 98-112). The distinctions and similarities between the two terms as Aristotle understood them frequently appear in Nadel's writing. For example, Nilufer lives in the artist's community at Balat in *Petrified* where she works with ceramics. She has to have some theoretical knowledge (*episteme)* of the physical properties of her materials in order to practise her *techne* and create her 'most exquisite ceramics' (8).

That the English world 'technology' is derived from the Greek 'techne' (Oxford Online) is significant here, as, viewed from the viewpoint of the Aristotelian paradigm, it imbues our present-day understanding of technology with a deeper meaning. Technology then, within the Aristotelian paradigm essentially involves a degree of integration between science and art, a link which has become somewhat lost to us in the twenty-first century.

Wheeler has also noted the link between art and science.

> In modernity, science is a particularly effective new tool; it is a very creative new tool in which we discover more about the world. It is, in fact, a new art of knowing; but it is one which tries to disavow its artistry. (2006; 51)

Nadel seeks to re-establish the link which modern science has tried to sever between theoretical science and art and craft as these relate to pre-Newtonian concepts such as myth, magic and imagination. In this, her work addresses similar issues and concerns to those raised by Bailey.

Bailey, formerly Associate Professor of Religion at Ithaca College, discusses the traditional barriers between myth and technology, suggesting that the underlying roots of technology lie within the myths of the very modern society that is set on denying their existence. Bailey's contention that '[e]ven materialistic science and technology are cloaked with the mantle of magic' (Bailey 39) echoes the relationship between magic and science commented on by Nadel. Nadel states that: 'In my mind and in my fiction, magic and science work alongside one another' (personal Email). The link between this and Wheeler's viewpoint has already been noted.

This link within technology between scientific theoretical knowledge and art is echoed by several of Nadel's characters, particularly İkmen and Gonca (a psychic gypsy who features in several of Nadel's novels). In *Deadly Web,* for example, Gonca states that '"all technology emanates from the creativity of man […] and that is magic"' (273). For Gonca, technology is a craft in that it combines scientific knowledge with man's imagination to produce useful objects. It therefore exemplifies Aristotelian *techne.*

İkmen also acknowledges this link when he refers to technology as '"a magical system I have yet to study"' (*Petrified* 174). That the Greek word *techne* is translated as either craft or art is significant here and will be discussed in greater detail later with reference to *Petrified.* Gonca recognises the 'deeper imaginative, mythic realities of our technologies and related sciences' discussed by Bailey (5). Gonca is one of Nadel's characters whose outlook is firmly routed within the Aristotelian (and the holistic) paradigm. For her all knowledge systems are one and resist subdivision.

Nadel's work suggests, then, that the science and technology of the Newtonian paradigm emanates from the pre-Newtonian knowledge systems, which form a part of the Aristotelian paradigm, or at least integrates elements of such systems within it. For Nadel, the current denial of the veracity of the whole area of psychic human experience has produced an un-balanced society, which may be, at least in part, responsible for the problems which we face today. This need for rebalancing of the importance of different types of knowledge is considered in greater depth later with reference to *Deadly Web.*

Pre-Newtonian Religion and Occult Knowledge

The pre- Newtonian knowledge systems, which exert influence in Nadel's writing, are both specific and non-specific. The main specific systems of pre-Newtonian knowledge are the magical system known as Kabbalism and the Yezidi, Muslim and Christian faiths. Kabbalism will be discussed in greater detail later with reference to *Deadly Web.*

The Yezidi Faith is of actual (as opposed to implied) importance in two of Nadel's novels; *Deadly Web* and *Petrified.* Sergeant Çöktin is of the Yezidi faith. The Yezidi faith is portrayed in these novels as being misunderstood, its followers:

> branded as devil worshippers by those who knew no better, their philosophical stance on the nature of Satan, a deity they called the 'Peacock Angel', being entirely unique. (*Petrified* 25)

The Yezidi faith postulates that Satan and God have been reconciled and that Satan has been returned to a state of grace. Worship of Satan is not therefore devil worship. Çöktin feels that this is the basic misconception from which the misunderstanding of his religion has arisen. Çöktin keeps secret his religion for fear of being hated, feared or ridiculed as a devil worshipper (*Deadly Web* 36). This fear is not unfounded, as derogatory comments are often passed by those who know of his religion, and he frequently feels that his position as a policeman is compromised by his faith. That his religion must remain hidden divides him from his colleagues.

> Çöktin's religion was not something that any of them [his police colleagues] could or would talk about. (*Deadly Web* 86*)*

There are also numerous references to the Muslim faith and Christianity, particularly in their contrasting attitudes to the role of fate in human life (*Dance with Death*) and contrasting beliefs about the human body and how it should be treated after death. The Muslim belief 'that the soul of the deceased is in torment until the body is buried in the ground' (*Deadly Web* 39) is also a major concern in *Petrified.* This belief causes tensions between the relatives of the victims (who want the bodies of their loved ones buried as soon as possible) and the police, who cannot release the body until all the forensic evidence it holds has been collected. This presents a practical demonstration of the antagonism that can arise between the Aristotelian knowledge systems (the burial rites of the Muslim faith) and the Newtonian-inspired forensic science. Although now a

secular society, ninety per cent of the Turkish population is Muslim. İkmen is nominally, although not a practising, Muslim: Dr Sarkissian, an Armenian Christian.

Non-specified occult knowledge is also of importance in Nadel's work, for example belief in evil spirits or djinn (*Deadly Web* 339), and in fate (*Harem* 115). The gypsy Gonca, is a frequent source of occult knowledge in these novels for both the reader and the detective force. Her psychic powers frequently act as a spur to İkmen's own powers, inherited from his psychic mother 'the famous witch of Uskudar' (*Deadly Web* 13). The ancient knowledge of the rural community in Cappadocia, in *Deadly Web* is also important to the story and its solution as discussed later.

Ritual is important to the pre-Newtonian systems of knowledge, be it the rituals for the burial of the dead in *Deadly Web*, *Petrified* and *Dance with Death* or the Kabbalistic rituals in *Deadly Web*. However, ritual also has a part to play in the Newtonian – inspired knowledge systems, especially in the post mortems carried out by Dr Sarkissian.

The Aristotelian and Newtonian Dichotomy of Turkey

In setting her novels in Turkey, whether in present-day Istanbul or within rural peasant communities, Nadel is allowing the reader to experience a different culture, one which is far less materialistic than that of the twenty first century Western world. Stripping away Newtonian assumptions regarding the superiority of empirical knowledge in relation to Aristotelian psychic knowledge systems, Nadel's readers are more able to experience her novels from multiple viewpoints. The reader can experience the novel from both inside the Aristotelian mindset of the people of the ancient rural communities and from outside, as consumers of fiction with a contemporary Western Newtonian mindset. The experiencing of the novel from both inside and outside also raises issues of concern to the holistic worldview as to whether complete objectivity is ever completely possible. The breaking down of barriers between different mindsets and the introduction of multiple viewpoints are similarly features of the holistic paradigm.

For Nadel, Turkey has associations with her own past, a backward looking influence which is also a feature of the Gothic novel. Nadel also says that 'Istanbul has a lot of places in which to hide bodies' (Nadel at www.shotsmag.co.uk). Whilst Nadel admits

the flippancy of this remark, it nevertheless suggests the possibility of an underlying hidden darkness running parallel to the openness and modernity of a huge modern-day city like Istanbul.

Istanbul is the perfect setting for Nadel's work because of its multi-faceted, multi-layered nature where a variety of races, cultures and religions co-exist at close quarters within a sometimes uneasy relationship. Anything is possible here. While Istanbul's ancient history renders it an appropriate setting for the explorations of pre-Newtonian systems of knowledge, it is also a thriving modern city allowing for an examination of how pre and post-Newtonian scientific paradigms can interact. As a feature of the holistic paradigm, this dichotomy is well suited to an investigation into the effect of the holistic paradigm's blurring of the boundaries between old and new.

Istanbul is itself dichotomous. Split by the Bosphorus, it exists on two continents. The 'new' European post-Newtonian side of the city is forward-looking embracing change, new technology and advances in scientific techniques that are used at The Forensic Institute to bring the perpetrators of crime to justice. It encompasses 'all that was European and naughty and tantalising - and important' (*Harem* 117).

The 'old' Asian aspects of the city, with its dark, sinister subterranean network of cisterns and passages, and its hidden places and dark practices could arguably be seen as a metaphor for the dark recesses of the human mind, something of which Nadel, with her background of psychiatry, must be well aware. The labyrinthine nature of these passages recalls the myth of Theseus and the Minotaur.

> Perhaps it was the mindset – the Asian mind, hard working and given to suffering and the reality of death; the whole area was characterised by massive, tree-darkened cemeteries. (*Harem* 117)

The mention of cemeteries here recalls the detective novel's Gothic heritage discussed later, recalling graveyard scenes in, for example, Bram Stoker's (1847-1912) Gothic masterpiece *Dracula* (1897).

Also associated with the dark side of the city is pre-Newtonian superstition and belief in the supernatural held by some of Nadel's characters, such as Gonca. Ancient practices, for instance the keeping of a harem continue, resurfacing in a more sinister form in modern-day Turkey, for example in *Harem.* Similarly, the old practice whereby sultans would imprison their younger brothers for life in Kafes so that they would be of no

threat to their sovereignty (and thus their inheritance) features in the plot of *A Chemical Prison* (2000). The plot of *Belshazzar's Daughter* (1999), set in the old Balat district of Istanbul, circles around the possibility that a bed-ridden old lady might be the only surviving daughter of the Russian Tsar Nicolas II. Bearing a great similarity to Miss Havisham, in Charles Dickens's (1812 – 1870) *Great Expectations* (1860) she tries to live in the past by surrounding herself with faded curtains and ancient furniture, and expecting her attendant relatives to dress and behave like members of the Old Russian Court. This power of the past and a belief in the veracity of the pre-Newtonian knowledge also expresses itself as a mistrust of anything new, such as science. This is illustrated later in the discussion of *Dances with Death.*

Nadel's Questioning of Newtonian Complete Objectivity

While the Newtonian paradigm asserts that complete objectivity is possible, Nadel's work adopts the holistic paradigm's stance by suggesting that complete objectivity is not possible. From the point of view of the reader, complete objectivity is not possible either. As N. Katherine Hayles notes: 'modern fiction tends to place us within rather than outside the frame' (37).

In *Harem,* for example, Constable Yildiz and his colleagues could not reach the same conclusion as İkmen, although possessing the same evidence. The conclusion, then, is not objective, independent of the observer. Yildiz and his colleagues lack the imagination which İkmen possesses, and so are unable to bridge the gap between observation and hypothesis. Different observers observing the same object or phenomenon do not necessarily perceive it in the same way.

In *Nicomachean Ethics* Aristotle contends that '[s]cience is the union of Knowledge and Intuition' (104). Within the Aristotelian worldview, science itself cannot therefore be truly objective as it requires the application of subjective intuition. İkmen might therefore be described as a truly scientific detective as he combines both knowledge and intuition to reach his conclusions. Although he does not practice science overtly, this links İkmen with other scientific detectives and so with the form's literary past. The relationship between the thought processes of Yildiz and İkmen, for example in *Harem,* mirrors that between Arthur Conan Doyle's Holmes and Watson. Watson is frequently in possession of the same evidence as Holmes, but is unable to deduce from it the

correct solution. For example, in 'The Adventure of the Blue Carbuncle' (1892), Watson tells Holmes that he '"can see nothing"' (246). Holmes replies: '"[o]n the contrary, Watson, you can see everything. You fail, however, to reason from what you see"' (246).

The requirement to possess both knowledge and intuition to reach the correct conclusion need not necessarily just apply to mental processes. It can also apply to the observation of concrete objects. A.F. Chalmers, in his 1978 publication *What is This Thing Called Science?* supports this view. In the first chapter, entitled 'Science as Knowledge' he discusses the veracity of the slogan "science is derived from the fact" concluding that what is perceived as a fact by one observer may not appear as such to another (18). Chalmers demonstrates the holistic paradigm's contention that observation can never be completely objective as it is coloured by the point of view of the observer.

Again *Harem* offers a good example here. The Fahri family search the underground cisterns for 'Greek treasure of imaginable value' which they believe is hidden there (21). Expecting to find the treasure, Turget Fahri's torch shines on what he and his mother both to perceive to be an 'ancient crown' along with 'gold and jewels also - emeralds, rubies, diamonds the size of babies' fists ...' (23). Only Nese Fahri, who has never expected to find the treasure realises that it is fake. This clearly demonstrates Chalmers's point that 'what observers see, the subjective experiences that they undergo […] is not determined by the images on their retinas but depends also on the experience, knowledge, expectations and general inner state of the observer' (7). None of these could be considered as having the objectivity and rationality of Newtonian-inspired knowledge. Therefore subjective Aristotelian phenomena (such as the imagination) form important elements in the interpretation of objective Newtonian science. This is related closely to the Aristotelian notion of *episteme* and *techne* discussed earlier.

In its demonstration that the Newtonian acceptance of the concept of complete objectivity is erroneous, Nadel's work can be considered as transgressing Newtonian boundaries between the objective and the subjective. It could, on the other hand, be seen as failing to recognise the existence of such boundaries and so align itself with the Aristotelian and holistic paradigms where notions of complete objectivity do not exist.

Other boundaries transgressed in Nadel's work include the boundary between past and present. In *Pretty Dead Things* (2008) for example, events from the 1960s reach

forwards to influence the present whilst present day forensic techniques reach back to make discoveries about the past. The boundaries between life and death are also explored in *Petrified* when dead bodies are preserved in a life-like state in an attempt to 'pin their spirits back to their bodies' (287).

By extension, the transgression and dissolution of Newtonian boundaries results in an understanding of the universe as one interconnected whole. As discussed in Chapter 1, wholeness is a primary concern of the holistic paradigm. Within this totality different, but interrelated streams and strata of knowledge exist, influencing and reacting to each other. At times Nadel dissolves the barriers between the Aristotelian and Newtonian systems completely, treating the two systems as one extended (or two totally integrated) system, as in *Dance with Death* and *Petrified*, discussed later.

Gothic as Literature and the Holistic Blurring of Boundaries

The Gothic as a literary form and its relationship to the detective fiction genre and the Aristotelian paradigm is discussed in detail in Chapter 2. The blurring of boundaries is both a feature of the Gothic novel and of the holistic paradigm. By employing Gothic imagery and using references to the Gothic, Nadel is re-establishing the link between the Gothic novel and detective fiction genre. Through her inclusion of elements of the Gothic, a literary form always in some sense about the past, within her contemporary detective fiction, Nadel is offering an illustration of how elements of the past continue to persist within the present. Other examples of the containment of the past within the present include, for example, the continuing importance of religious myths (*The River of the Dead, Deadly Web*), ritual embalming (*Petrified*) and the persistence of elements of ancient cultures (*Harem, The Chemical Prison, Belshazzar's Daughter*).

The description of the scene at the pre-post mortem examination of the bodies of the first two victims in *Deadly Web* is reminiscent of Mary Shelley's (1797-1851) character Frankenstein working on the body of the monster in her 1818 book of the same name (Shelley, 1818: chapters 3 and 4). Both Frankenstein and Dr Sarkissian are fascinated by the structure of the human body, but whereas Frankenstein is fascinated by the origin of 'the principle of life' (Shelley 32), Dr Sarkissian's interest is, conversely, in 'why

people came to die' (*Petrified* 42). Both Frankenstein and Dr Sarkissian are working on the structure of corpses late at night (Shelley 40, *Deadly Web* 40).

The language in which Nadel describes the post mortem in *Deadly Web* conjures up a scene which bears a greater resemblance to some Gothic ritual than a modern scientific procedure. The bodies are brought into the mortuary from another room, from which 'grinding, metallic noises' (40) are heard reminiscent of Gothic clanking chains. Gulay Arat's dead body was 'greenish-white' (41): 'thin tendrils of water vapour' (41) arose from 'the anonymous lump that had been Cem Ataman' (41). This is discussed in greater detail with reference to *Petrified.*

The importance of the supernatural within Nadel's work also demonstrates the influence of the Gothic. Fred Botting, in *Gothic* (1996), his seminal work on the history of the Gothic form, states that:

> [s]upernatural occurrences [...] are associated, in scientific and quasi-religious terms, with the forces and energies of a mysterious natural dimension beyond the crude limits of rationality and empiricism, exceeding the reductive and deterministic gaze of materialistic science. (136)

The supernatural as an extension and expansion of human consciousness and perception will be discussed further with reference to *Deadly Web* and *Dance with Death.*

Other examples of elements of the Gothic employed by Nadel include: the use of archaic settings (discussed above) (Punter1); the importance of past events (*Dances with Death, Petrified)* (Saggs 30); issues of identity and the fragmentary nature of the personality (Kilgour 5) and resistance to progress (*Petrified, Belshazzar's Daughter, Dances with Death, Harem*).

Newtonian Division, Holistic Interrelatedness and the Theme of Identity

From the viewpoint of the holistic paradigm that favours process over fixity, Wheeler defines personal identity, that is, the self, as:

> not something fixed, but is process. The self is like a journey (or a path), and what an individual *is* at any one point on that path *is* simply the path, or, in other words, the network or web of relationships – the environment in all senses of the word – in which they are enmeshed. (2006:100)

The search for a coherent identity is a recurrent theme in Nadel's work, be it the identity of a city, (*Harem*), a culture (*Dance with Death)*, a person (*A Chemical Prison, Petrified, Belshazzar's Daughter)* or what defines us as human (*Deadly Web).* Nadel examines the degree to which pre-Newtonian psychic knowledge systems and Newtonian-inspired science define what it means to be human.

As discussed in Chapter 1, the reductionist nature of Newtonian science regards the world and everything in it as composed of individual discrete particles. These particles interact according to a small set of physical laws. This approach all but eliminates aspects of the world and human existence that cannot be quantified and measured scientifically. Similarly, the physical identity of a man can today be determined through scientific analysis of his DNA. However, a man's personal qualities and attributes, such as his sense of morality, conscience and humility, what Wheeler refers to as man's 'affective life' (81) cannot be so determined. Nadel uses man's identity as a medium through which to investigate the effect of privileging his scientifically knowable definable physical make-up over any consideration of his soul qualities. This is particularly noticeable in *Deadly Web, A Chemical Prison* and *Petrified.*

Identity is not just an issue for individual characters; it is also an issue for locations. The search for a coherent identity by a city as diverse as Istanbul mirrors the search for an identity by its individual inhabitants. On the one hand, the diversity of the city allows its inhabitants to free themselves from Newtonian boundaries of race, religion, creed or gender. However, this holistic freedom can lead to a lack of a sense of identity, and of belonging. It can lead to instability and confusion as experienced, for example, by the murder victims in *Deadly Web*. Gulay, the first victim, turns to Satanism partly as a result of her loneliness, her lack of a sense of identity and belonging. Her identity changes from the daughter recognised by her parents to the convert to Satanism she had become at her death. This illustrates Wheeler's understanding of identity as a process and so links it to the holistic paradigm (2006: 98).

The mystery of identity of Mrs Gulcu is at the centre of the plot of *Belshazzar's Daughter.* The identity of the bodies found in *A Chemical Prison, Dance with Death* and *Petrified* is unknown for a large part of the story. It is not Newtonian –inspired practical science which usually proves the identity of these individuals: it is the power of intuition balanced by Aristotelian logic and reason. Personal identity is not just

dependent on reductionist genetic make-up of the Newtonian paradigm (see discussion of *Dance with Death)*: it is also about how we see ourselves, how we define ourselves. This can involve our history, background, religion, gender, class, and employment.

Ikmen's Story: Inter-Paradigm Tension and Accommodation

Identity is also an issue for İkmen. Within his character the Aristotelian non-empirical psychic knowledge systems and Newtonian science are separate knowledge systems which exist, sometimes uneasily, side-by-side. İkmen has 'built [his] whole identity around being a policeman' (*Arabesk* 2). Newtonian influences on his life include his best 'old-childhood' friend, the Newtonian-influenced Dr Sarkissian (*Belshazzar's Daughter* 24). İkmen's brother and one of his sons are medical doctors. İkmen's father is an intellectual, a former university lecturer in English.

Aristotelian influences are equally strong. Due to her powers of precognition and her ability to tell fortunes, İkmen's mother became identified as a witch. İkmen has inherited some of these powers that inform his police work. In *Harem*, for example, İkmen 'knows' Seker is lying: '"call it something supernatural […] precognition, that sort of thing"' (60). İkmen's intuition is similar to that of Andy Dalziel, who, in *Good Morning, Midnight* (2004), acknowledges his 'little black imp', which tells him when thinks are not right (339). He also counts the gypsy Gonca amongst his friends (*Deadly Web* 173).

The tension generated between the two paradigms is also demonstrated within his marriage and therefore his home life. His being a non-practicing Muslim demonstrates the influence of the Newtonian paradigm: his devout wife, the Aristotelian paradigm. They have nine children and live in a small apartment on İkmen's limited policeman's pay. All this takes its toll on İkmen. He drinks, smokes and suffers from gastric ulcers, the result of overwork and the tension caused by the conflicting demands and the multifarious influences on his life.

It is largely due to İkmen's understanding of these different elements and his ability to balance and reconcile the psychic and the scientific reasonably successfully, that İkmen is so good at his job. He is 'a high-ranking and successful officer in the İstanbul police force' who is well liked and respected (*River of the Dead* 2). According to Erol, in

Arabesk, İkmen is 'one of the most decent men I have ever had the good fortune to meet' (252). He is able to take what is needed from the appropriate knowledge system to solve a crime. He can balance his intuition with the scientific facts resulting from Dr Sarkissian's forensic examination of evidence. Although insisting 'he wasn't a scientist,' İkmen can combine intuition with the Aristotelian mode of thought (as noted above) to solve a crime (*Dance with Death* 65). In his ability to reconcile the disparate influences and pressures within his life, he bears a close resemblance to Hill's Andy Dalziel. The characters of İkmen and Dalziel thus demonstrate to the reader that combining elements of seemingly disparate paradigms can create a more complete world view. The use of relevant aspects of both the Newtonian and Aristotelian paradigms increases the range of strategies available with which to approach the problems of today's multi-faceted world.

***Petrified* (2004)**

Petrified contributes to this thesis through its investigation of the effect of regarding a human being in purely Newtonian, reductionist terms, that is, as a physical entity without due consideration of the importance of Aristotelian qualities of soul and mind. Secondly, *Petrified* demonstrates Nadel's interest in the holistic paradigm's blurring of boundaries, here between a living human body and an embalmed, lifeless body; between art and science and between the Aristotelian concepts of *techne* an *episteme*. Further, *Petrified* is important to this study for its interrogation of the nature of art and the relationship between art and science. Indeed, *Petrified* examines the limitations or boundaries of art.

The Plot of *Petrified* in Brief

The plot concerns the body of an elderly lady, Rosita Keyder, who has died of natural causes. It is found in a flat in Istanbul together with the perfectly preserved body of a young man. The young man is later identified as Miguel Arancibia, Rosita's brother, who has been dead for many years. At the same time, the disappearance of twins Yasar and Nuray Akdeniz is reported by their grandmother. The children's father, Melih Akdeniz, is a visual artist who lives for his work. He and his wife seem sure that the children will return. Lack of parental concern over their children's whereabouts raises

suspicions for İkmen and his team that the parents themselves might be involved in the children's disappearance.

A raid on the gangster Rostov's home as part of a drugs investigation discovers a body, reputedly of the gangster's daughter, concealed in a freezer, apparently awaiting embalming. Linking this with the embalmed body of the young man reveals a large, well-established and lucrative embalming business. The process developed by Dr Ara, preserves the bodies in a life-like state, providing they are constantly maintained by treatment with an emollient.

Melih prepares to give a spectacular performance of a Karagoz play on his front lawn, to which many important people are invited. Realising that the 'puppets' to be used for this performance are actually the preserved bodies of Akdeniz's missing twins, İkmen arrives in time to stop the performance. Melih, who is dying of cancer and could not bear to leave this world without his children, asks his wife to shoot him. He had planned to take the children with him in one last enactment of his art.

The Role of Pre-Newtonian Belief Systems in *Petrified*

Pre-Newtonian belief systems such as religion are not recognised by the Newtonian paradigm as they are open-ended systems which cannot be totally known. The vast majority of the characters in *Petrified* have a belief (to a greater or lesser degree) in spiritual or psychic forces which cannot be proved by Newtonian science. This belief shapes the way they view the world and acts as the background against which they can live their lives. *Petrified* also acknowledges how a multitude of faiths can be practised and accepted within a given community. Living in a multi-faith culture is shown in *Petrified* as helping to create an atmosphere of tolerance and understanding. Within *Petrified,* faiths and religions are not separated by Newtonian barriers. Father Giovanni, Rosita's Catholic priest, has a deep understanding of other faiths. He is able to discuss other religions with understanding and sensitivity. This is demonstrated by his comparison between the Islamic, Christian and Jewish faiths: '"I've often thought how both attractive and sensible your Islamic philosophy of total submission to and reliance upon God is"' (24). Whereas:

> " the trouble with Christianity and I think with Judaism too is that we're encouraged to believe that we can influence our own destinies, which is most

> dangerous [...] we can't be anyone we want to be or have anything we want to have any more than we can stop ourselves from dying." (25)

Bailey notes the mind-expanding effect of the possession of a religious faith, because religions point 'beyond ordinary consciousness' (2). Here, Father Giovanni seems to be suggesting that while expanding our conception of the world beyond the physical, religion still needs to recognise some boundaries.

The faith to which a character adheres not only defines his outlook on the world but to a certain extent defines him as a person. Çöktin's allegiance to the ancient native Kurdish religion of the Yezidi isolates him but only because of a misunderstanding of its tenets by his colleagues. It is not his beliefs that cause him difficulties, it is their being misunderstood. Çöktin's belief in this ancient religion plays no part in the actual plot of *Petrified.* The inclusion by Nadel of this information about Çöktin does, however, say much about him as a person, including his need to constantly disguise his religion for fear of persecution.

These different faiths or strands of belief do not just have power of themselves but interact to form an all-embracing aura of spirituality, reflecting the interrelatedness of the holistic paradigm. Also a feature of the interconnectedness of the holistic paradigm, the sum of the different faiths and belief systems is greater than the individual strands within it. Their interaction produces a general sense of tolerance, understanding and acceptance. This tolerance is apparent in the relationship between Dr Sarkissian and İkmen and İkmen and Gonca discussed earlier.

Although a non-practising Muslim, İkmen is quite prepared to seek the support of his religion when the situation requires it. For example, when the Akdeniz twins are reported missing and İkmen has no lead as to their whereabouts, he prays.

> "Look, I know that You and I have our differences regarding religion, ethics, Your very existence,' he said wearily, 'but You know, these children are very young and even though we're doing everything we can, I would appreciate a little help…" (7)

İkmen, asked by Gonca what he feels regarding the fate of the Akdeniz twins '"deep down in that place where emotion becomes truth'" (54) enters what '[s]ome called magic, others an 'altered state'. He preferred 'insight' himself' (54). İkmen's entering an altered state of consciousness demonstrates the interrelatedness of different strata of knowledge characteristic of the holistic paradigm. While physically present at home,

İkmen's consciousness is able to travel to where the children are being held. He feels the children being tortured. From here onwards he starts to suspect that all is not well at the Akdeniz household. They are holding something back. İkmen wants to believe that '[o]f course they wouldn't, couldn't harm their own children' (85). But the possibility, once having entered İkmen's mind, grows. The entering into an altered state of mind is a feature of the Gothic and has been discussed in Chapter 2.

Embalming, the Dead Body and Scientific Paradigms

In *Petrified,* four bodies are known to have been subjected to the embalming process: the daughter of Rostov, Miguel Arancibia and Yasar and Nuray Akdeniz. The embalming process is important to this study because it is a concept which defies attempts to define it within a given paradigm. While its physical manifestation is obvious and the process itself can be known, it is its meaning which justifies its practice, meaning which changes with the interpretation of the observer. The Newtonian paradigm separates the objective from the subjective and contends that complete objectivity is possible. The process of embalming contests this, thus supporting the holistic paradigm's contention that complete objectivity is not possible, as it is influenced by the position of the observer. Different characters view the process differently: Dr Ara, Dr Keyder and Mehil Akdeniz as an art: Dr Sarkissian as a religious practice.

The postmortems on Rosita Keyder and Miguel Arancibia (whose identity is originally unknown) are carried out by Dr Sarkissian. Rosita died naturally of an aneurism; the young man of cancer. His body amazes Dr Sarkissian. It has been embalmed, but not as Christians embalm bodies before burial. Christians had their bodies embalmed so that they are in a fit state when '"Christ comes again to redeem the world"' (61). According to Dr Sarkissian: '"[t]his one is different […]. This one […] has been subjected to far more sophisticated version of the embalmer's art […]. It has movement, suppleness […]. I've never seen anything like it" (62). Dr Sarkissian consults the mortician Yiannis Livadanios. Livadanios recognizes the preservation technique as similar to that employed by the now dead master embalmer, Dr Pedro Ara. The body has been continually maintained by applying an emollient coating to it daily to prevent deterioration, possibly for as long as fifty years. Time has virtually stopped for the body of the young man.

Here again, time zones seem to merge in the continuation of the ancient practice of embalming. The embalming of bodies is an ancient process originally carried out to maintain the body in a certain state, that is, to 'fix' the body to prevent deterioration. In *Petrified,* the process has been developed and refined to accommodate the needs and beliefs of the post-Newtonian worldviews. The earliest detailed knowledge of the practice is from the Fifth Dynasty of Ancient Egypt, although bodies may have been embalmed well before this. The preservation of the body was considered of great importance to the well-being of the dead person in the after-life (James 157). It was the main part of the religious burial ritual, not the quasi- scientific procedure it has become in *Petrified*. That the internal organs were frequently removed and embalmed separately and that the body was buried alongside everyday objects that might be of use in the after-life, shows an acceptance of death.

However, the embalming practices of Dr Keyder, in a Post-Newtonian world unsure of the existence of an after-life, whilst developing the process, have distorted its original meaning and significance beyond recognition. The original process of embalming demonstrated concern for the Aristotelian soul of the deceased. Dr Ara'a advances in the technique are not so much to preserve the body after death, they are rather to maintain it in as life-like, as death-denying, death-defying a state as possible. Dr Ara has corrupted what was originally an Aristotelian technique to benefit the soul of the deceased into a modern soul-denying Newtonian scientific practice. It has more to do with the needs of the living than those of the dead.

The embalming process transgresses the boundaries between the three paradigms. As a religious ritual it is associated with the Aristotelian paradigm that recognized non-empirical knowledge systems. The treatment of the human body as a physical entity results from the reductionist materialism of the Newtonian paradigm That the body has to be 'maintained' by the continual application of an emollient coating turns the embalming of the body from an event into a continual process, an example of the holistic privileging of process over events.

The process of embalming challenges the Newtonian assertion that time is absolute and exhibits continual forward motion. Whereas originally embalming of a dead body demonstrated a recognition and acceptance of death and therefore allowed the mourners to move on, Dr Ara's developments meant that someone had to maintain the body,

possibly on a daily basis. This would have allowed no forward motion and would have tied the dead body to its living maintainer.

Martha A. Turner has noted that 'Newton's absolute space and time [...] are no longer held to contain the unquestioned truth they were believed to be 150 years ago' (31). Supporting this view, the post mortem of Rosita similarly challenges the Newtonian separation of past, present and place, in that it incorporates elements of eighteenth century Gothic literature. By recalling elements of the detective fiction genre's beginnings, Nadel links *Petrified* to its literary forbears. It simultaneously favours the holistic paradigm's notion of inclusivity.

Constable Yildiz notices the 'alarming selection of instruments', ready for the post mortem. Dr Sarkissian experiences the Gothic blurring of boundaries between life and death as he 'raised his knife in preparation for cutting into the body [of Rosita]' (42). The use of instruments to perform the post mortem becomes confused with the use of instruments to perform acts of torture, as in, for example, in Matthew Gregory Lewis's (1775 – 1818) Gothic novel *The Monk* (1796) (Lewis 277). Dr Sakissian becomes gradually less able to distinguish the dead corpse from a living body. In *Petrified,* Dr Sarkissian becomes increasingly disturbed by the notion that the body might 'cry out in pain' to the extent that he wonders if he will be able to carry out the post mortem at all (42). Although not particularly religious, he 'had nevertheless never quite managed to shake the idea that what he did was an act of defilement [...] that what he was doing was breaking an ancient taboo' (42).

Challenging the Boundaries of Art

Aristotle named art as one of the five 'faculties whereby the Soul attains truth' (*Ethics* 100). Art, for Aristotle, is 'a certain state of mind, apt to Make, conjoined with reason' and therefore has to do with production (*Ethics* 101). All art is a matter of the representation or imitation of nature, that is, of the world as it is. Art as a representation of human life and human nature held particular significance for Aristotle (Barnes 131). Melih Akdeniz is 'Turkey's wealthiest and most experimental visual artist. His work, which was expressed through a variety of media, took modern, controversial themes and represented them in a traditional Turkish context' (5). His art, then, demonstrated how

the traditional and the modern could be integrated into a whole, providing an example of the holistic paradigm's notion of interrelatedness.

Melih is disliked by many (such as fellow artist Nilufer Cemal) for the kind of uncontrolled, unprincipled life he lives as much as for his unpleasantness as a person. He is of Jewish descent, but has no faith or belief to guide his behaviour. As such he is untouched by the air of tolerance generated amongst those within the story who have spiritual belief. Melih is obsessed with his work and with his own importance. Frequently 'drunk as well as delusional' he also indulged in 'legendary heroin binges' (9). Sitting in his studio his 'drug-addled brain' frequently sought 'new and even more shocking ways to express his genius' (11). While İkmen admits that Melih has talent and can appreciate some of the social and political points which he is trying to make, he resents the amount of money he is making (20).

The Karagoz shadow play is an old art form, which had its origins in the Ottoman era. Melih's adaptation of this ancient form for the purposes of extending the bounds of art provides another example of the holistic paradigm's crossing of boundaries. In its imitation and representation of human life it is an example of the Aristotelian paradigm's conception of art. İkmen's sergeant, Ayse Farakoglu tells how '"in Ottoman times Karagoz shadow puppet plays were used as artistic vehicles for social criticism"' (39). The two main characters of the original Karagoz were the peasant and his adversary Hacivat the Ottoman. Originally real people, they irritated the Sultan so much that he had them executed. When the Sultan started to feel guilty, one of his subjects designed the screen and puppets of the two so that they could live again.

In this way Karagoz preserves the idea of a person without a physical body, the opposite of embalming which preserves the body without the soul. Both of these viewpoints fail to acknowledge that a human being is only complete when the Newtonian physical body and the Aristotelian soul are integrated, the disastrous results of which are illustrated in the story.

Melih's Karagoz performance extends the boundaries of his art form into the grotesque by using the dead bodies of his children as the puppets. Melih could not bear dying and leaving his own children, so, according to his wife Eren, he found a way of '"incorporating them into his own death, as art"' (325). The police investigation, the childrens' post mortems and Eren's prison sentence were all part of the 'performance.'

This widening out of the conventional understanding of the meaning and practice of art is significant for this study because it echoes Aristotle's understanding of art as 'a certain state of mind' (*Ethics* 101). For Eren:

> "the performance [...] will continue for as long as our event lives in the memories and the archives of people across the world. It is immortal and [...] we are immortal too. Art cannot be killed." (327)

For Eren, art is not a Newtonian discrete object; it is an ongoing holistic never-ending process, which continues in the minds of those who experience it. By transforming his children's bodies into art, they too will live on indefinitely. Having no belief in an afterlife, Melih tried to make his children immortal in this life. In the killing and embalming of his own children, he tried to trick death and decay, and ensure through his final karagoz performance, that they would remain alive in the folk memory of the world forever.

The children's dead bodies transgress Newtonian boundaries: they exist at the boundary between the real and the unreal, challenging our expectations. The bodies of the children are also designed to shock – to challenge the boundaries of what is considered allowable, acceptable, decent and safe. The holistic paradigm's negation of boundaries is not always comfortable as the Newtonian imposition of boundaries is not always bad. Boundaries can also provide security and safety. The appearance of the children's bodies has horrific qualities for the reader. Their degree of flexibility implies life, which is alarming in its absence. The erosion of the boundaries between life and death, for example in the figure of the vampire, is typically Gothic.

Along with Melih and Eren Akdeniz, Dr Keyder also regards the human body in itself as art. She too wants to test the boundaries. For Dr Keyder '"embalming […] is a magical art"' (297). For her it is neither a religious ritual nor a scientific technique. The body, as object, devoid of human life becomes something else, something new, something immortal, '"liquid sun"' (287); it becomes a work of art. For her the dead bodies of the children are where 'art and science combine to produce beauty' (289). Dr Keyder says that: '"Art is about making people think […]. Nobody wants their loved ones to die, nobody actually wants to die themselves. My art is about the expression of those desires […] it's about re-establishing a mystical link with the deceased too"' (297). This echoes Bailey's assertion that the arts should not be seen as mere entertainment (Bailey 34). The body as art is a very controversial subject, witness the

reaction to Professor Gunter von Hagens's 2002 Body Worlds Exhibition. Hagens 'sees himself on a global mission to end the elitism of the medical profession which, he believes, has denied the lay public access to a better understanding of their own bodies' (Jeffries, www.guardian.co.uk).

Petrified opens up the debate concerning what constitutes art. The characters' views are vastly opposed. Ayşe Farsakoğlu asks Çöktin if he thinks that '"such a thing can be art"' (299). Çöktin relies that: '"art was something that people had to like"' (300). For Dr Keyder, '"[a]rt is all about statement"' (291). Commissioner Ardic, however, holds a completely different view. For him, how '"anyone should think that murder and that abominable embalming practice is art, is beyond me"' (301).

Newtonian Reductionism - The Human Body as Physical Object

Petrified might be seen as offering a critique of the twenty-first century's obsession with the human body as a physical object. Dr Keyder distances herself from the live children, whose bodies she embalmed, refusing to recognise their Aristotelian souls and thus refuting any blame or responsibility for their deaths. In fact they had to be killed by Melih as part of the ritual that became his final artistic work. Whilst being interviewed by police she states that: '"[i]f I, as someone with no connection to them, had killed them, no new boundaries would have been set […] the exhibit would have been devoid of any fresh philosophical base"' (291). By ignoring the Aristotelian spirituality and the lost life of the children by treating them as objects, she can take pleasure and pride in her work. Even whilst in custody, she 'looked as if she were getting some sort of gratification from her descriptions of processes [of embalming]' (292). Dr Sarkissian 'was staggered by Miguel […] as a scientist […] but Dr Sarkissian didn't <u>like</u> what he saw' (297). He did not like what he saw because the perfection of the corpse naturally implied that it was alive, in possession of an Aristotelian soul.

This mirrors the revulsion Alex shows at the photograph of Zrinka's body which has been 'improved' to resemble a live person in Jardine's *Death's Door* (2007) discussed in Chapter 4. The soul's absence rendered the body grotesque. There is an interesting contrast to be noted here. While the dead bodies in *Petrified* seem terrifyingly less than human, the bodies of the two dead girls in Jardine's *Death's Door* take on an angelic quality; they are beautiful, almost more than human.

Perhaps this is a warning to contemporary culture, which is also in danger of becoming obsessed with the human body as object. In the same way that the embalmed bodies were maintained by the daily application of an emollient to protect the skin and stop it from drying out, there are a huge range of supposedly age-defying beauty creams available for daily application, which also aim to keep women (and men) of today from the appearance of ageing. Today's culture is in danger of glorifying the body beautiful and valuing its Newtonian physicality over the Aristotelian soul qualities. In highlighting these dangers, Nadel is again demonstrating the negative consequences inherent in valuing the materialistic and reductionist qualities of the Newtonian paradigm over the soul qualities of the Aristotelian paradigm.

The Theme of Being Human and Scientific Paradigms

Petrified demonstrates the dangers of privileging Newtonian human physiology over an individual's Aristotelian soul qualities. The human body fulfils an extensive range of functions within Nadel's work. In earlier examples of the genre (such as in the fiction of the Golden Age writers) the function of the largely bloodless corpse was arguably limited to giving the initial impetus to the detection of the corpse's murderer. The function of the corpse was therefore contained within the novel itself. In the work of Nadel, for example, the role of the corpse is to initiate far wider investigations than those limited to the detection of the murderer. The form of Nadel's fiction does not mirror the closed, confined systems of the Newtonian paradigm, but rather reflects the openness of holistic systems in that it reaches out and includes concerns which extend beyond the boundaries of the novel itself. In *Petrified,* for example, the embalmed corpses are used as a starting point for a questioning of the nature of art. The corpses of the teenagers in *Deadly Web* resemble what Gillian Plain refers to as 'the ritual corpse or 'sacrificial' body' (33). Such sacrificial bodies are 'in effect an offering to the gods, or ghosts, of war' (33). This is certainly the case in *Deadly Web* where the teenagers are sacrificed to clear the city of the darkness brought about by the Iraq war. This will be discussed in more detail later.

In conclusion, *Petrified* undermines the Newtonian paradigm by demonstrating that its key concept of reductionism cannot appropriately be applied to human life. At the same time, *Petrified* supports the Aristotelian paradigm in showing how human soul qualities

sanctioned by it form an essential element of the human person. *Petrified* also supports the Aristotelian paradigm by illustrating the benefits of integrating some form of spiritual belief into a more holistic worldview. The resultant spirituality broadens awareness and fosters an ethos of tolerance and respect within and between diverse socio/economic and religious groups. *Petrified* echoes the Aristotelian understanding of science as a combination of knowledge and intuition through the personality and detecting practices of Ikmen.

Petrified questions the nature and purpose of art. Art is portrayed as a holistic process, for example, in Mehil's last performance of his Karagoz play. Similarly, embalming is also a process, whilst being regarded by some (Dr. Keyder, for example), as art. Nadel's investigation of the process of embalming questions the usefulness and relevance of establishing Newtonian divisions and boundaries for purposes of classification and definition. *Petrified* demonstrates that such divisions do little to enhance our understanding of the world. Whereas some divisions are shown as being unhelpful or irrelevant, like those between the religious and secular world, Mehil's art also illustrates how the dissolution of boundaries can be dangerous. Mehil's art, whilst being regarded as great by some, must be viewed as having overstepped the boundaries of acceptability and decency with its incorporation of the bodies of his murdered children. Nadel's exploration of the wisdom of completely disregarding boundaries is expanded and developed in *Deadly Web*, particularly in relation to the behaviour of Max.

***Deadly Web* (2005)**

Deadly Web is of particular interest to this thesis because it extends Nadel's investigation of the beneficial effects of incorporating elements of the Aristotelian worldview within the presently dominant Newtonian paradigm. Further, it also presents a picture of the world as it might appear from a more holistic viewpoint, a world that has at its disposal the benefits of knowledge systems from outside those recognized by the dominant Newtonian paradigm.

Secondly *Deadly Web*, like *Dance with Death*, which will be considered next, tests the boundary between what constitutes a fact and what constitutes a belief by treating Kabbalism, which in the post-Newtonian world might be considered as a belief, as fact.

Because belief is given a prominence only normally associated with fact, events are experienced by the reader from a different perspective, bringing about a shift in the readers' perception of what constitutes reality. Further, the actual nature of reality itself is brought into question. In the words of Ibrahim Dede, a Dervish acquaintance of Inspector İkmen: '"Reality? [...] What is that, Çetin Bey?"' (*Deadly Web* 388).

Further, *Deadly Web* examines the integration of magic and science with particular reference to computer technology, the 'deadly web' of the title. The computer is shown to be far more than just a cold, neutral, passive product of Newtonian science. In line with the holistic paradigm, it is shown to be potentially much greater than the sum of its separate mechanical parts.

The novel opens with the discovery of the naked body of Gulay Arat. She has been stabbed through the heart, but there is evidence of bizarre sexual practice. In another part of Istanbul, the body of a young man, Cem Ataman who has apparently committed suicide, is discovered in a graveyard. The bodies of two other teenagers are subsequently found at different points around the city. The teenagers have links with the Goth movement and are also keen users of Internet newsgroups.

Suspicion eventually falls on Max, a Kabbalist of İkmen's acquaintance. Max knew all the victims as he taught them English. The police, visiting Max's home, find it covered with blood. Max is nowhere to be found. It is not known if he is dead or alive.

İkmen consults his gypsy friend Gonca and the dervish Ibrahim Dede, both of whom think that Max might be about to perform a ritual to try to rid the city of the darkness in which it is becoming increasingly engulfed. Max tries to perform his ritual at night on a boat in the Bosphorus using İkmen's daughter, Çiçek as bait to involve İkmen. Fortunately, he is apprehended before any harm comes to her.

Max throws himself into the water but is captured by the police. He becomes increasingly unwell during the night and eventually dies. His body is placed in a body bag but when the technicians open the bag the following day to prepare the body for post mortem examination it is empty.

The story is a complex one. As such, its basic assumptions owe much to the holistic paradigm. For example, the different strands of the plot are interdependent and interconnected, the outcome of one having a direct influence of the outcome of others.

This interaction of plot lines emphasizes one drawback of the holistic paradigm; it offers no real closure. One consequence of this, noted earlier with reference to Quintin Jardine's *Death's Door* (2007), is a heightened sense of insecurity, both for the characters and for the reader. The plot lines are so interconnected that it is difficult for the detectives to decide which clues and which evidence belongs with which crime. A similar situation was noted in respect of Jardine's *Skinner's Ghosts.* The resultant confusion delays the resolution of the crime, to some degree permanently.

Due to the nature of Gulay's death and the suicide of Cem in a graveyard, the youngsters' interest in all things Gothic is at first thought to be at the root of the killings. This is an example of holistic interconnectedness leading the detecting team to the wrong conclusion. Starved of parental love, Cem and Gulay both 'dress in black, talk about vampires and exist only in their computers' (47). Gulay joined Internet newsgroups hoping that they would fulfil her need to belong and provide the friendship which she craved.

The Importance of Pre-Newtonian Knowledge Systems

Kabbalah

Although the origins of Kabbalah are unknown, one of its key texts, the Sefer Yetzirah, (Book of Creation) is known to have been in use in the tenth century and may have been written as early as the third century. It is a complicated system of correspondences within which every idea contains with it its own contradiction. Therefore God is both good and evil, just and unjust, merciful and cruel, limitless and limited, unknowable and knowable. The central symbol of Kabbalism is The Tree of Life. The tree describes the route by which the divine spirit descended to earth and the path humankind must take to ascend to God. At the end of *Deadly Web,* Nadel includes an Author's Note giving details of this pre-Newtonian belief system (410). Nadel describes Kabbalah as 'the magical system devised and practiced by Jewish occultists'. Her Author's Note goes on to say that:

> At the most basic level Kabbalah is a system of relationships or correspondences that, theoretically, open up access to the inner reaches of the mind. Based around a diagram called The Tree of Life, Kabbalah teaches that both man and the universe are one and the same and therefore interchangeable […] [I]t is therefore possible to influence the divine by using those corporeal

> forms [...] that correspond to whichever angel or demon may be asked for assistance in the unseen world. (410)

Within the text, Gonca explains to İkmen (and to the reader) the principles of Kabbalism, how: '"[e]verything is interconnected"' (176). There are no barriers, no boundaries. Everything is accessible through everything else. Gonca explains how '"that which is in heaven and that upon earth are one and the same and are completely interchangeable"' (176). This interchangeability and interconnectedness is a feature of the holistic paradigm.

Kabbalism is described then by both Nadel, after the conclusion of the story, outside the text and from within the text by Gonca. Kabbalah exists both within the story, influencing (or possibly dictating) the world view of the characters and outside the story, in the real world of the reader. By placing its description after the end of the main text, it takes on the role of non-fictitious information. It demonstrates how knowledge gained within the novel persists in the mind of the reader after the text is complete. Not only does it help the reader understand the story better, Nadel's inclusion of the information about Kabbalah, may influence the way the reader understands and appreciates the real world within which the novel is read.

In the text, Max is described as 'a very powerful Western magician, a Kabbalist, an adept and a close acquaintance of both angels and demons' (69). İkmen had known Max since the 1970s. However, Max is: 'a much darker man than İkmen […] just dark in several different ways' (64). Despite their differences, when the two had originally met, the men had 'clicked immediately' (69). But Max evoked an 'uneasy feeling' (69) in İkmen which the latter did not particularly enjoy. While İkmen recognizes that he and Max shared certain psychic powers, he does not totally understand these powers and cannot control them. It is this lack of control which worries İkmen. As İkmen 'had been both in love with and repelled by his magical mother, so he felt that a distance of some sort needed to be put between himself and Max' (69). İkmen felt safer if a certain degree of Newtonian separation is maintained between him and Max. İkmen is particularly wary of Max's interest in teaching his daughter Çiçek to use her inherent magical powers. İkmen, always wary of his own powers of intuition did not want them expanded by Max's influence.

Max's Story

Max Esterhazy is not a child of the Newtonian paradigm. He is not limited within its confines and to some degree the Newtonian paradigm does not recognize his existence. Max cannot be reduced to the discrete particles of the Newtonian paradigm, nor does his existence obey its laws. As far as Max is concerned Newtonian- inspired science and forensic scientific techniques are impotent. Forensic testing of the large quantity of blood found in Max's home can tell that the blood is human and can decipher its group. The blood is the same group as that of Max and yet science cannot reach further than this; it cannot prove that the blood is actually that of Max. Max gives the lie to the Newtonian assertion that everything within the world is eventually completely knowable through science. For Max at least, this is not the case.

İkmen feels out of his depth when treating Max as a suspect and asks Gonca for help in how best to approach Max. Dede has obtained books for Max for over thirty years. İkmen consults Dede on the meaning of texts on the occult found in Max's apartment. Worryingly for Ikmen, Dede tells him that Max has knowledge that makes him capable of most things saying that: '"real Kabbalists can do things that, to most people, would seem to be impossible"' (173). Dede tells İkmen that if Max does not want to be found, he will remain invisible. Max '"could very well still be in his apartment; he could even be watching us now"' (173). Max resembles Jardine's Skinner (in *Skinner's Ghosts* (1998) discussed in Chapter 3) in that his lack of adherence to the generally accepted boundaries of behaviour render him unpredictable and possibly dangerous.

Max the magician lives within a pre-Newtonian paradigm. He is not restricted by the laws and rules of the Newtonian worldview. Whilst for modern Western man it is Newtonian-inspired science that opens up new possibilities, freeing us from old superstition, for Max it is the pre-Newtonian knowledge systems which make the seemingly impossible possible. In İkmen's words: '"with Max, anything is possible"' (194). Within his Aristotelian world ancient, occult knowledge opens up a whole new realm of possibilities, which can be frightening to those who do not understand them, whilst having a liberating effect on those who do.

While İkmen and the police see Max's disappearance as suggestive of his guilt, Dede suggests the possibility that Max is '"working to restore the balance in this city […which…] has become very dark of late"' (174). This darkness is due in part to the Iraq

conflict which also provides the backdrop for Hill's *Good Morning, Midnight* (2004) discussed in Chapter 3, illustrating contemporary detective fiction's willingness to engage in contemporary political debate. With his son about to do his National Service, the Iraq war is a concern close to İkmen's heart.

Max's ritual required the sacrifice of the teenagers at the four cardinal points of the city. Their deaths opened up the portals allowing the performer of the ritual to invoke the protection of the guardian angels of these portals. He is then safe to perform the ritual at the centre of this protected circle, in this case on the Bosphorus. Noting Turner's comment that 'clearsightedness' is essential for 'unprejudiced observation' (72) it is interesting that the four ritualistic murders, Cem's suicide, Max's attempt to perform his ritual and the disappearance of his body are all associated with the dark of the night. That the vision of the observers is obscured by darkness might be a metaphorical representation of Turner's further point that 'complete knowledge is rarely available to fallible human beings' (72). Max's fate is left unexplained at the end of the novel: the true nature of his ritual not understood.

The question is posed as to whether Max is good or bad. However, it is doubtful whether such a question applies to Max, as within Kabbalism, the distinction does not really exist. Talking to İkmen on a boat in the Bosphorus, Max explains his motives. He was trying to protect his city '"[f]rom war. From gas attack, from chemicals, from the ghastliness of ethnic cleansing [of the Turks by Saddam Hussain]"' (348). To do so, however he had murdered three girls and accepted the suicide of the boy Cem. For Gonca: '"the ends justify the means, do they not?"' (286) İkmen is shocked but Gonca explains that: '"[r]ight and wrong, black and white – these are meaningless concepts in the scheme of the universe"' (286). Further, for Gonca, '"[b]lack and white, good and bad, [are] only different faces of the same coin"' (288). Gonca seems to be implying that such Cartesian dualities are human constructions rather than basic universal truths.

Bailey makes the point that dividing the world into dualities such as right and wrong, life and death, can make understanding more difficult because 'we constantly find problems in the large intermediate areas' (41). He feels that we would be better off exploring 'other options such as paradox and continuum' (41). These other options reflect the concerns of the holistic paradigm rather than the Newtonian paradigm, which favours the division and separation of experience and phenomena.

No conclusions are offered as to how Max's body vanished from the body bag the next day. İkmen himself cannot reach a conclusion. Whether Max faked his own death or really became invisible is never known. Perhaps Max the enigmatic magician never existed within the 'normal' boundaries of human-kind. Nadel herself feels that:

> Max may well have been able to control his body to the extent that he only appeared to be dead and then made his escape. But then again when Ibrahim Dede the dervish talks of Max being in other worlds maybe he isn't wrong. Who are we, after all to dictate how many dimensions there are? (personal Email)

The fluidity of Max's character represents the holistic world view rather than the clearly defined personality that might be expected of a character ruled by the Newtonian paradigm. His identity is never fully defined. His nationality is in doubt. He was brought up in England but his father was a Nazi. Dede viewed Max as 'a good man.' When İkmen points out that he murdered people, Dede says that it was the entities that he conjured up that had committed these deeds, thus freeing Max from any personal responsibility in their deaths (388).

The end of the book has similarities to Hill's *A Killing Kindness* (1980) discussed in Chapter3. In both novels there is a suggestion (here from Dede), that the gypsies will seek revenge for the murder of the gypsy girl, one of their own. When Ikmen tries to press Dede on this he will only reply: '"I am saying nothing […] I give you only the facts; it is for you to make your conclusions"' (389). These are almost exactly the same words as occur in *A Killing Kindness* but there they are spoken by the pathologist, a representative of Newtonian science. This resemblance suggests that crime fiction presents facts as being knowable but that actually arriving at the truth is far more problematic, or as Bailey puts it 'a fact is merely a fragment of truth' (Bailey 44).

Max's character also raises issues of identity frequently encountered in Nadel's work. Max exists almost more within the science of Aristotelian paradigm (defining and identifying him by his qualities), than within the science of the Newtonian paradigm that would define him as a conglomeration of solid particles. The lack of materialism in his outlook is reflected in the fluidity of his physical body, which can apparently dissolve, disappear without trace.

Computer Technology and the Paradigms

Bailey notes that:

> [A] strong materialistic worldview proposes that everything can be explained by scientific method, that matter is the basis of reality, that reality is fundamentally mechanical, and that technology is morally neutral. (10)

The Newtonian paradigm supports such a materialistic world view. However, the function and role of computers within *Deadly Web* contests this viewpoint, showing that 'technology's world is not as rational as it claims to be' (Bailey 9). Wheeler recognizes the Internet as a complex system based on simple rules (2006: 52). This is true in that the Internet is a system in which the whole is more than the sum of its parts. In *Deadly Web* the computer seems to take on a life of its own.

For example, while in its physical manifestation, the computer itself is value-neutral, the world of computer technology is portrayed as a dark and forbidding one in *Deadly Web*. Cem and Gulay may retreat into their computers as a result of lack of parental love, but the computers and the newsgroups to which they belong are impersonal. The victims' computers are examined by the police but the identity of people who have contacted the murdered teenagers is unknown; they only have the pseudonyms 'Communion' and 'Nika'. They cannot be traced as '"people hide their identities […] just so that they can express themselves without fear of ridicule or retribution"' (80). However, this lack of identity to some degree renders them incomplete and unreal as demonstrated by their lack of real names.

The pre-Newtonian link between *techne* the root of the word 'technology' and *episteme* (art or craft) has been previously noted. In relation to computer technology, the computer itself, being comprised of a set of physical components powered by electricity, is a manifestation of *techne,* or pure scientific knowledge. The use to which the computer is put demonstrates *episteme*. As Nilufer in *Petrified* demonstrates the Aristotelian link between *techne* and *episteme*, the computer hacker Hüsnü takes this integration of *techne* and *episteme* one stage further. He is virtually the personification of *episteme* as applied to computer technology: he is almost one with his computer. He provides the Aristotelian soul qualities which the mechanistic computer lacks.

Sergeant Çöktin contacts Hüsnü, for help with the victims' computers. He cuts a strange figure. Hüsnü '[d]ressed from head to foot in white […] was a cross between a nerdish

cyber-junkie and a late seventies gigolo' (133). He lived in a virtual world at the heart of his digital empire but he did not want to make this virtual world real. There was no printer in his studio to produce hard (real as opposed to virtual) copies. Hüsnü himself never went out, never ventured into the real world as he did not want to miss anything that might appear on his computer screen.

Hüsnü inhabits a strange cyber-world. His being dressed completely in white suggests disembodiment: he has become some kind of spiritual, almost angelic being. Like Max, he has almost given up the normal physical aspect of being human. He lives in and through his computer. He has become little more than a mechanized, computerized brain. It is worth remembering here how Sherlock Holmes described himself in 'The Adventure of the Mazarine Stone' (1921): '"I am a brain, the rest is mere appendix"' (Doyle 1014).

Bailey notes how elements of spirituality, or 'enchantments' were rejected and discredited by science and were deemed to be non-existent within the new technologies. It is his contention that these enchantments have not been removed, just altered. Hüsnü the disembodied, spiritual, angelic being might be representative of this spirituality, which Bailey sees as still inherent within technological devices such as the computer. Bailey adds that the extant enchantments 'still have a powerful effect on us, including the demand for sacrifice' (6). Hüsnü has sacrificed much of his human existence to his obsession with computers.

The image of Hüsnü as a computerized brain is similar to the 'brain in a vat' image mentioned by Bailey (Bailey 63). Bailey suggests that this image can be traced back to the philosophy of Descartes who saw disembodiment of the mind as the only way of arriving at absolute truth. In order to ascertain absolute, objective truth the mind must be free of all sources of delusion. Descartes 'I think, therefore I am' was the outcome of his effort to eliminate illusion (63).

Hüsnü seems here to adopt a contrary position. His mind, rather than freeing itself from all sources of delusion, has in fact become totally trapped within it. His obsession with his cyber-world enslaves him to the degree that it overrides his human bodily needs. He takes amphetamines to keep himself awake, because, as he tells Çöktin: '"If I sleep, I might miss something"' (133). The computer (as a technological, materialized brain) or, at least, what appears on the computer monitor, is itself an illusion. It does not exist in

any real, solid state. When the computer is switched off, the information displayed on its monitor ceases to exist in a readily accessible form and may be permanently irretrievable. There is an anomaly here. It would appear that one of the most advanced technological achievements of Newtonian science-inspired technology produces only an image of reality, not reality itself.

This crossing of boundaries between reality and illusion is a feature of the holistic paradigm. Perhaps there is an underlying suggestion here that a view of the world based purely and solely on the precepts of Newtonian science, on physical laws and rules, is illusory. Arguably, Newtonian science provides a very limited view of the universe disregarding, as it does, the whole realm of soul qualities recognized by the Aristotelian paradigm as well as the emotions that cannot be quantified.

One detrimental effect of the holistic paradigm's openness and lack of forward movement is that it creates a sense of confusion. This has been previously noted with reference to the work of Hill and Jardine. The multidirectional nature of the holistic paradigm can leave the characters themselves with no sense of direction and with no personal goals. The interdependence characteristic of the holistic paradigm can also leave characters feeling that they lack control over their own destinies. This is experienced by Berekiah Cohen, İkmen's son-in-law, at the end of the book. His dilemma illustrates how without Newtonian order and boundaries around which to structure one's life, life can become more difficult, not easier.

As the novel reaches its limited conclusion, Berekiah muses on the future. İkmen's son, Bulent, is fearful of joining the army in the New Year. Berekiah recognizes the need for 'an entreaty to a higher beneficial power' because they 'lived in threatening times [...] if they [Muslim, Christian, Jew] didn't appeal to something both good and powerful to come to their aid then what could they do?' (407). This 'higher beneficial power' is not the power of Newtonian scientific paradigm. Science cannot answer the questions foremost in Berekiah's mind: questions like '"Would people be gassed or poisoned [during a war]?"' and '"[w]hat was in the minds of people like Saddam Hussein and George W. Bush?"' (407). The powers of science are shown as worthless in solving the real problems the twenty first century faces. Berekiah's wife Hulya (İkmen's daughter), thinks that she might be pregnant. While she is excited at the prospect, 'Berekiah […] could only feel anxiety and depression. A baby? Into this world?'(407)

Concluding *Deadly Web*

Deadly Web challenges the supremacy of the dominant Newtonian paradigm and its assumptions by setting the plot against a background within which pre-Newtonian belief and faith systems form the dominant worldview. In doing this, Nadel allows the reader to experience life from a different viewpoint and perspective.

Deadly Web also explores the implications of computer technology. Through the character of Hüsnü, Nadel explores the pre-Newtonian enchantments present within Newtonian technology and exposes the possibility that technology which is benign in essence, can be put to negative, as well as positive use. Interestingly, this is also an important element in the plot of Jardine's *Autographs in the Rain* (2001)

In *Deadly Web,* through the beliefs of Dede, Gonca and Max in particular, Nadel investigates the nature of reality itself, showing that in limiting the concept of reality to that which is scientifically provable, the dominant Newtonian paradigm may be in error. Through *Deadly Web's* questioning of the nature of reality, the reader is encouraged to question whether conventional divisions, for instance between reality and illusion, fact and fiction are useful divisions within the contemporary world.

Nadel also suggests that Newtonian science is not always the facilitator that we believe it to be. By denying the value of that which is not immediately provable, modern science can be seen as creating boundaries rather than destroying them. Modern science has more to do with exerting control and order over one's environment. The holistic paradigm, in contrast, is about internalizing information about one's environment and adapting to it: it is about learning rather than enforcing. It is this subtle shift in position that Nadel is examining here.

Dance with Death (2006)

Barbara Nadel's novel *Dance with Death* is important because it develops Nadel's exploration of the interrelationship of Aristotelian and Newtonian systems of knowledge previously encountered in *Petrified* and *Deadly Web.* Specifically it examines the limitations of Newtonian science to adequately deal with human dilemmas.

Further, *Dance with Death* develops Nadel's recurrent theme of identity (previously discussed with reference to *Deadly Web* and *Petrified*). The novel illustrates the dangers which might arise from trying to be a human being purely in terms of Newtonian reductionism, that is, as a the product of ones DNA. It demonstrates the importance of gender, social position, race, creed and personal Aristotelian qualities of soul and mind in defining identity.

Dance with Death opens with the discovery of a mummified body in a cave in Muratpasa, in rural Cappadocia. İkmen's cousin, Menşure Toketh, asks for his help in identifying the body and the killer. He is persuaded to offer his assistance by Menşure's suggestion that the body might be that of an old flame of İkmen's who disappeared many years previously. Identified by her father Haldun by her six-toed feet, the body is actually that of a local girl, Aysu Alkaya, who disappeared twenty years previously at the age of nineteen. Aysu was married to the old Ziya Kahraman but loved Kemalettin Senar.

The police had shown very little interest in Aysu's disappearance at the time. Without a body and with their limited resources they realised that there was little chance of solving the mystery. There was not even evidence that a crime had been committed. Even now her body has been found, the local police can tell little more than that Aysu was shot in the back with a Colt 45 and that she was pregnant.

İkmen arrives suggesting that Newtonian-inspired DNA testing of the corpse and the foetus will identify both beyond doubt. However, while the local villagers do not understand the nature of the tests to be carried out, they fear what the results will reveal. The body is stolen from the mortuary before İkmen's pathologist friend Dr Sarkissian can take the samples that are needed for the DNA testing. The body is taken to a disused chimney house where an attempt is made to destroy it by fire. Disturbing the thieves, İkmen is knocked unconscious and left for dead in the cold mountain landscape overnight. He survives, and holds a meeting of all the villagers, during which the murderer confesses.

The Cappadocian Landscape and Detective Fiction

The region of Cappadocia is famous for its 'weird, lunar landscape' (3) of Fairy Chimneys, natural geographical structures made of a volcanic substance called tufa. These chimneys, conical structures which are thousands of years old, have throughout their existence provided living and working space for the local inhabitants. Their age, fixity and the security they provide harks back to the Aristotelian age. The 'spooky and barren' (35) Gothic landscape brings to mind the Orkneys where Frankenstein worked on building a female companion for the monster he had already created. Frankenstein describes the landscape as 'hardly more than a rock [...] desolate and appalling' whilst '[t]he soil is barren' (Shelley 136). The strange Cappadocian landscape similarly brings to mind the imposing, threatening landscape of Dartmoor which forms the back-drop of Conan Doyle's *The Hound of the Baskervilles* (1901-2). Watson's narration of his first glimpse of Dartmoor describes how 'there rose in the distance a gray, melancholy hill, with a strange jagged summit [...] like some fantastic landscape in a dream' (700).

In both Dartmoor and the Cappadocia, the landscape creates a mood and atmosphere in which anything could happen: a mood of instability and uncertainty: a mood consistent with the occult concerns of the pre-Newtonian worldview. There were stories attached to the chimneys by the locals, of bats and wolves and ghosts 'from its Hittite and Byzantine Past' (35) as well as spirits, 'for whom, some would say, a higher power had especially created the chimneys' (36).

These barren landscapes also reflect the Aristotelian privileging of stasis over motion in that they have remained largely unaltered for thousands of years. They also represent a holistic blending of past and present. The ancient landscape acts as a vehicle through which primeval influences reach into the contemporary world.

The setting not only ties the villagers to the past practices and beliefs, but may have a more direct influence on the inhabitants. Some of them are 'decidedly odd' (4), possibly the result of both inbreeding and the effect of 'the extremely rude-looking rock formations' (35) which apparently resembled giant erect penises. The domination of the landscape by these phallic symbols mirrors the way in which the lives of the local inhabitants are obsessed with heredity, with 'untainted blood' (95) and with patriarchy.

Yet belief in spirits such as the peris and the djinn does not suggest that the local inhabitants are narrow-minded. Rather, similarly to the belief in Kabbalism in *Deadly Web*, within this rural community 'anything and everything was possible' (54). Belief in the psychic realm of human experience can be liberating and mind-expanding.

The Threat of Newtonian –Inspired DNA Testing

The arrival of İkmen, from the modern progressive city of Istanbul, with his talk of arranging Newtonian-inspired DNA testing of the body and foetus, stirs up old prejudices and fears. The murdered girl's father, Haldun Alkaya, welcomes the possibility that DNA testing might finally reveal his daughter's killer, even though his only understanding of it has been through watching a television programme. It is its potential to give him some peace which interests him, not the technique of DNA testing itself. To the villagers DNA testing is 'strange and frightening' (203).

As previously discussed, the characters' attitudes to embalming in *Petrified* are influenced by the paradigm from which its practice is viewed. Here, similarly, the villagers' Aristotelian viewpoint dictates their attitude to the DNA analysis associated with the Newtonian paradigm. This challenges the Newtonian paradigm's assertion that knowledge and truth are absolutes by demonstrating how they are coloured by the life experiences and mental attitude of the observer.

The villagers do not regard it from the point of view of the Newtonian paradigm, within which it would be regarded as an objective, dispassionate neutral scientific technique, but from within the Aristotelian paradigm. In so doing, the villagers imbue it with Aristotelian- related powers, such as the power to identify Aysu's killer (165) and to worry people (175). İkmen feels that Haldun '"seems to regard DNA as some kind of magical solution"' (70). From within their Aristotelian worldview, they almost seem to think that at it can reanimate Aysu's body. Baha Ermis is sure that as a result of DNA evidence '"Aysu Kahraman's murdered body will condemn that retarded brother of yours [Kemalettin]"' (126). Similarly 'Aysu may reach out and claim a new life of justice for herself' (162). This raises interesting questions regarding the difference between knowledge and understanding. The villagers might know about DNA testing but do not understand its principles, function or potential. Aristotle's Theory of Causes describes the concept of the inherent potential of an object or phenomena to change or

bring about change in another (*Physics* 2.3). This is a rare instance in Nadel's work where combining Newtonian and Aristotelian principles does not work. Imbuing cold, clinical DNA testing with Aristotelian qualities leads to faulty understanding.

İkmen, on the other hand, despite being in possession of some psychic powers himself, views the world more from the view point of the Newtonian paradigm. Even though he admits that he 'is not a scientist' and so does not 'know exactly' the details of DNA testing, he is able to explain the technique in some detail to Turgut Senar (164). That İkmen's mental outlook is rooted in the Newtonian paradigm is also illustrated by his basic unease at being in ancient, rural Muratpasa. He is desperate to return to Istanbul and feels that he was unfairly lured to Muratpasa by his cousin. İkmen, even though he has family links with Muratpasa, nevertheless found the place 'extremely alien' (58). He was also uncomfortable with the deep religiosity of most of the villagers.

Left unconscious after being attacked, Ikmen and the modern post-Newtonian sophisticated world he represents, with its DNA testing, is threatened with destruction by the bare, freezing, eerie landscape representative of the ignorance of the Cappadocian villagers. It is ironic that the warmth of the embers of the fire set to burn Aysu's body and destroy any scientific evidence which it might have been able to reveal, helps to keep İkmen alive through a night of temperatures reaching minus twenty five degrees centigrade. The villagers fail to realise that the burning of the body of Aysu, rather than destroying DNA and forensic evidence, will create yet another source of it. This further demonstrates their complete lack of understanding of modern scientific techniques.

İkmen's meeting of all the villagers takes the form of an Agatha Christie – type dénouement, for example in *Murder on the Orient Express* (1934). İkmen wants to take the participants '"on a journey into both the distant and recent past of this lovely village"' (290): a personal journey to examine their own actions and part in the plot. Contrary to the emphasis of earlier detective fiction, it is not only the murderer who is guilty: murder is not the only reprehensible act committed here. For example, her father's greed required Aysu to marry Ziya, an old man, because of his wealth. As İkmen reviews the various possible motives for Aysu's murder, the murderer confesses: it is Nalan Senar, the mother of Aysu's lover Kemalettin. Her reasons were three-fold: to protect the family honour; to protect the family against Ziya's revenge when he found

out about Aysu's relationship with her son Kemalettin and because Kemalettin's father was not Nalan's husband. Kemalettin's father was black and so Aysu's baby may have been black also. By the murder of Aysu, Nalan hoped to keep both her own and Aysu's infidelity hidden. To some extent she was punishing Aysu for her own misdeeds and so assuaging her own feelings of guilt.

It transpires that Aysu's old husband desperately wanted a (genetically) perfect son. When he saw Aysu's deformed feet on their wedding night he was shocked and realised that Aysu and her father have duped him into marriage. Aysu's DNA was not perfect. He treated her badly afterwards in punishment of her and her father's deception. Kemalettin Senar's DNA might also be imperfect. He has 'always been a bit odd […] strange' (93). The story reveals that Kemalettin's maternal grandfather suffered from Huntingdon's disease, which eventually killed him. Kemalettin's mother discovered from discussion with the doctor that Kemalettin could also have the disease as it is a genetic disorder. Aysu and Kemalettin's love for one another saw past their physical, genetic imperfections. *Dance with Death* demonstrates the dangers of placing too much importance on Newtonian physical make-up of humankind in that it is unable to demonstrate, assess or account for human soul qualities or personal attributes such as the capacity to love.

The case is solved, but not through Newtonian- inspired DNA testing as this is never actually carried out. It is solved more through the locals' fear of what science will reveal and through İkmen's skill as a detective. İkmen is happy and relieved to return to Istanbul. İkmen expresses his sentiments regarding the countryside thus: '"[t]he country-side – the quiet, the serenity, the nature, the spite! Thank whatever God you favour for Istanbul"' (324). These echo the sentiments of Sherlock Holmes in 'The Adventure of the Copper Beeches' (1892)'that the lowest and vilest alleys in London do not present a more dreadful record of sin than does the smiling and beautiful countryside' (Doyle 323). Both demonstrate how external physical characteristics can be deceptive. Similarly, Aysu may have been physically deformed but she was capable of love in a way that the physically perfect Nalan Senar was not. Aysu loved not only Kemalettin, but also her father to the extent that she was prepared to marry an old man so that her aged father would be well provided for in later life (62). The physically perfect Nalan Senar had flaws in her Aristotelian soul qualities. These manifested

themselves in her infidelity, vindictiveness, selfishness and in her willingness to commit murder.

The Relationship Between Paradigms in *Dance with Death*

The plot is dominated by the potential power of Newtonian-inspired science, especially the science of genetics, to define human identity through an individual's DNA. However, it is clearly demonstrated that it is the *implications* of the scientific evidence which are really important, rather than the science itself. *Dance with Death* reveals the necessary role of Aristotelian non-empirical knowledge systems to imbue Newtonian – inspired theoretical scientific fact with meaning. The science of DNA testing is by itself cold, barren and lifeless, strange and intimidating like the Cappadocian landscape. While both reflect the cold objectivity of the Newtonian paradigm, it is the Aristotelian human soul qualities, their histories and stories which give them meaning. The villagers who live within this landscape are used to experiencing life from an Aristotelian viewpoint and try to interpret Newtonian science from within their Aristotelian world in the same manner. In this way, the barren rock formation known as 'the chimneys' could be seen as a metaphor for the genetic make-up of man.

Newtonian-inspired present-day genetics is reductionist in that it seeks to reduce a human individual to his genetic code. The science of genetics stems from work on heredity carried out in the mid-nineteenth century by Gregor Mendel (1822-84) using the common garden pea (Porter 586). Others developed his work to establish the mechanism by which traits are passed on from parent to offspring. The study of genetics continued to refine the method of inheritance until, in the 1869, the Swiss biochemist Friedeich Miesher discovered the nature of genetic material itself when he identified nucleic acid, a fundamental part of deoxyribonucleic acid, or DNA. DNA is the source of the most personal of information. With the possible exception of twins, DNA is unique to every individual. Turgut Senar, Kemalettin's brother, expresses this reductionist attitude in his assertion that genes contain the essence of 'what a man really is' (184).

Edmund Locard is credited with first stating that 'every contact leaves a trace' (White 56). DNA testing of these traces can establish the DNA fingerprint of the individual, possibly the murderer, who left them. DNA evidence is irrefutable, concrete, objective and provable evidence that will stand up in a court of law. As forensic evidence it

demonstrates characteristics associated with the Newtonian paradigm: it reduces knowledge to its smallest possible parts. In *Dance with Death* Inspector Erten of the Nevsehir (the regional capital) police has '"seen a video of this [DNA testing]"' and appreciates that '"in this age of scientific wonder […] it is almost impossible to commit an offence and not leave something of oneself behind"' (104).

While the local villagers erroneously ascribe almost magical powers to DNA testing, in another way they are correct in that the results of the DNA test will reveal far more than Aysu's genetic make-up. There are similarities here with Jardine's *Death's Door,* where the Newtonian-inspired MRI scan of the pregnant Maggie Rose renders her body almost transparent when it reveals not only the stage of her pregnancy, but that she has cancer. The villagers fear that the DNA testing of the body of Aysu and the foetus within it will reveal the baby's father and so expose far more about Aysu's private life than either they or she would necessarily want. Here again it is not the science that is to be feared, it is the implications of what (unwanted) information it might reveal. While Newtonian science might provide information, it does not provide the recipients of that information with the strength to deal adequately with what they might learn.

Again, it is the implications of Nalan's knowledge of the science of genetics that causes her to murder Aysu. It is not the Newtonian-derived scientific knowledge that is responsible for Aysu's death; it is the social and religious taboos associated with the pre-Newtonian knowledge system which are mainly responsible. Pure dispassionate scientific knowledge of the Newtonian paradigm alone is neutral: it is neither good nor bad. It is how knowledge is interpreted that is important. For Ivo Mosley, it is 'this dispassion, which distinguishes the scientist in many admirable ways, is only of value when it is tied to a moral outlook' (Mosley 258). However, as demonstrated in *Dances with Death,* morality is subjective and may vary from culture to culture.

It has been shown in Chapter 1 that Darwinism, which exists largely within the Newtonian paradigm, regarded the moral sense and conscience as one of the highest faculties of man (*Descent* 70). For Darwin, they rank above the intellectual qualities of reason and logic (*Descent* 73). Darwin also points out that while our moral sense or conscience are of little value to the individual, they are of immense import to the social group to which a man belongs (*Descent* 166). It is this moral sense that Menşure and many of the other villagers, such as those who attacked Ikmen, seem to lack. Illustrating

Darwin's point, this lack of moral sense causes Menşure to worry that '"this village will fracture once the truth is known […] fingers will be pointed and unless someone makes sure the proper evidence is collected, DNA or whatever it is, then someone could end up getting hurt or worse "' (52).

Aysu's disappearance has almost passed into the folklore of the village. Nadel here provides an illustration of the dangers inherent in reaching conclusions completely devoid of any concrete Newtonian evidence. The villagers reach the wrong conclusions when relying on Aristotelian feeling, intuition and conjecture alone. The crime has been solved in their imaginations. People have their own views as to what had become of Aysu. These views were broadly divided into two camps: those who thought that the family of her husband was responsible and those who blamed Kemalettin. Kemalettin now suffered with mental problems, many think as a result of the remorse he feels for killing Aysu. Some even thought that her father Haldun was responsible: '"some think it might have been an honour thing"' (70).

The relationship between Newtonian proof and Aristotelian belief, as well as the frequent confusion of the two (discussed above with respect to *Deadly Web*) is interesting here. The villagers regarded their conclusions regarding Aysu's disappearance, although only opinion, as truth. People 'knew' what had become of Aysu and at whose hand. They were, however, all wrong: the real murderer, Nalan, never fell under suspicion. Their 'knowledge' of the identity of the murderer was erroneous because it derived, not from objective intellectual reasoning based on concrete scientific evidence of the Newtonian paradigm, but on subjective opinions, feelings and prejudices of the pre-Newtonian age. To each family involved, their conclusions, however erroneous, provided an acceptable level of closure that all had learned to live with. The arrival of DNA testing created antagonism between their ancient form of 'knowing' and Newtonian-inspired scientific knowledge.

Concluding *Dance With Death*

The Newtonian paradigm establishes general rules which specific cases must then obey. The murder of Aysu Alkyay is a direct result of the imposition of such Newtonian rules, which show little regard or sympathy for the concerns of the individual, within the village culture. Aristotelian philosophy is essentially aporetic, that is, it poses and

answers individual puzzles (Barnes 59). *Dance with Death* demonstrates how such an approach is far more appropriate when dealing with human relationships than the Newtonian imposition of blanket rules.

Also suggested here is that personal identity is not solely determined by one's Newtonian reductionist genetic make-up. It is also concerned with gender, social position, race, culture, creed and qualities of mind and soul. Family history and cultural beliefs are also shown as playing a defining role in establishing individual identity. On the one hand, identity is shown as a much broader concept than can be defined by genetic make-up. On the other hand identification of an individual can be constricting and limit a person's freedom, denying them access to that which they are not.

Dance with Death additionally demonstrates the limitations of reductionist Newtonian-inspired science in dealing with human situations where emotion and feeling play a major part. Of all the characters in *Dance with Death,* it is Nalan the murderer who best understands what the DNA testing of the body of Aysu can reveal. This understanding, however, does not equip her adequately to deal with the implications of the results. Nalan murders Aysu for a variety of reasons (listed above), all of which are perfectly reasonable based on scientific Newtonian fact alone. The science is heartless and cold, however. Nalan has employed the intellectual qualities of scientific reasoning and logic, but not the higher attributes of sympathy, morality and conscience so highly regarded by Darwin in reaching her conclusion that Aysu must die. The novel shows that however correct and logical the scientific reasoning may be, murder as a solution is morally wrong.

In *Dance with Death,* Nadel airs her concern regarding the dangers of treating an individual as just a physical object which she also explores particularly in *Petrified*. The tragic end to Aysu's even more tragic life is due in part to Haldan, Ziya and Nalan treating her with dispassion, as an object, a means to an end, to produce an heir and keep her father in financial security. To them she is the sum of her Newtonian parts. So concentration on the physicality of being human at the expense of any regard for man's emotional side can lead to erroneous, unbalanced conclusions. This unbalancing is dangerous (see discussion of *Deadly Web*).

Barbara Nadel and Paradigms

In *Petrified, Deadly Web* and *Dance with Death* Nadel is concerned with re-establishing the importance of knowledge systems excluded from the dominant Newtonian paradigm. These knowledge systems include myth, magic and religious faiths and belief systems such as Kabbalism. Nadel's work demonstrates how total reliance on the Newtonian world view provides a limited understanding of reality while acceptance of pre-Newtonian knowledge systems can expand the human consciousness and so aid the creation of a more complete world view.

The world view which the novels of Nadel promotes is one in which the concerns of Newtonian paradigm cease to provide the dominant impetus. The world of Nadel's fiction is not the stable, ordered, predictable, rule-bound world of the Newtonian paradigm. The reader is thus freed from what Turner aptly calls 'the trap of mechanistic conceptualization' (87). Through Nadel's novels, the reader is given the opportunity to consider the world and people's actions within it from other, more inclusive viewpoints such as those promoted by the Aristotelian and holistic paradigms. However, the dangers of relying on Aristotelian feelings, intuition and imagination alone to reach the truth are also demonstrated. Rather than being driven by Newtonian materialism, Nadel's world accepts the need for the balancing qualities of psychic knowledge systems accepted within the Aristotelian paradigm to produce a more complete holistic worldview.

In many ways Nadel, in *Deadly Web* especially, challenges the readers' conception of the nature of the detective fiction genre itself. As is similarly the case with Jardine's *Aftershock* (2008) and Hill's *A Killing Kindness* there is no real sense of satisfying closure. Rather than fulfilling the traditional role of offering reassurance that the status quo will be maintained, *Deadly Web,* set against a background of the Iraq war (like Hill's *Good Morning, Midnight*), emphasizes uncertainty and impending unwelcomed change. In not always conforming to the time-honoured 'rules' of detective fiction, contemporary detective fiction itself might be thought of as a metaphor for a world running out of control and threatened by environmental issues, war and terrorism. How an ancient community copes with the uncertainties of the current age is an important consideration of *Dance With Death.*

As mentioned in relation to *Petrified and Dance with Death*, Nadel is keen to draw her readers into the story as active participants, withdrawing in some degree the Newtonian division between the reader and the text. This withdrawal allows the text greater congress with the real world. The many unanswered questions at the end of the novels, rather than offering a sense of conclusion and closure, create an aura of uncertainty. These questions are to be answered by the reader. Their answer is therefore subjective, depending on the interpretation, life-experiences and viewpoint of the individual reader.

Conclusion

> The mortuary was an ugly building, bleak and forbidding [...]. The superintendent led the way into a small windowless chamber; there was an extractor fan set in the ceiling, whirring noisily. A trolley lay directly below it, and on it, a human figure, under a white sheet [...]. He drew back the cover, to reveal the dead face, 'Is this the body of your daughter, Zrinka?' (140)

> 'The public think of the term "forensic science" in a very narrow sense. The skilled detective who looks analytically at all the physical facts of an investigation, and determines what they say about truth or untruth, innocence or guilt – he or she is the true forensic scientist".
> 'So what you're saying is, if you wanna be a detective, you have to have a mix of analytical skills and patience.'
> 'That's right. Although I mustn't miss out the magic ingredient.' [...]
> 'What's that?' he asked.
> 'Luck.' (249)

The above quotations are from Quintin Jardine's *Death's Door* (2007) and *Thursday Legends* (2000) respectively. They open this conclusion because in many ways they epitomise the change in the relationship between the Aristotelian, Newtonian and holistic scientific paradigms and British detective fiction which has been the subject of this study.

Comparison of the first of the above quotations with that from Arthur Conan Doyle's *A Study in Scarlet* (1887) which opens the Introduction, reveals significant changes which this thesis has identified, in the fictional detective's attitude to fundamental tenets of the Aristotelian, Newtonian and holistic scientific paradigms. Hawking has noted (186) how it was once possible for a reasonably educated person to have a basic grasp of the sum total of human knowledge. The speed of development of Newtonian science and technology in the modern age has made this impossible today. The detective, too, is unable to keep up with the latest developments in forensic science. It is, therefore, no longer he (or she) who carries out the forensic work, but a team of highly qualified and trained experts working in state of the art laboratories. The growing sophistication of forensic science has excluded the detective from the process. Superintendent Brian Mackie in the above quotations, unlike Holmes, is no longer a student of overt Newtonian science, he is an outsider.

The first quotation also reflects the rise in importance of the human body to detective fiction since the Holmes adventures of Conan Doyle were written. The Newtonian paradigm is atomistic, implying that the nature of the whole can be ascertained from an examination of its constituent parts. This precept is examined by Reginald Hill, Quintin Jardine and Barbara Nadel, all three of whom show it as inapplicable to the human being. The detailed examination of minute samples of forensic evidence from both inside and outside the body which is a feature of the work of Quintin Jardine in particular, frequently shows the Baconian-based science of the Newtonian paradigm to be ineffectual in establishing either the reason for the victim's death or at whose hand the murder was committed. By exposing such weaknesses, the veracity of the Newtonian paradigm itself and its ability to offer satisfactory solutions to problems of the modern age is brought into question.

The first quotation also reveals another concern expressed within the work of Hill, Jardine and Nadel: that of identity. All three authors, but Nadel in particular, show that identity cannot be determined through physical make-up alone, but is a product of a multitude of influences including religion, gender and class. This again undermines the atomism of the Newtonian paradigm suggesting a weakening of its influence. The three authors' work rather demonstrates the importance of inclusivity championed by the holistic paradigm. Personality is a product of the integration of, amongst other factors, Newtonian genetic make-up with Aristotelian soul qualities. Further, viewed from the prospective of the holistic paradigm, identity can itself be thought of as a process. Identity is therefore not fixed, but always changing with these evolving influences.

As well as raising issues of identity, the atomism of the Newtonian paradigm introduces the concept of barriers, separation, enclosure and division which have been addressed by this thesis. These barriers are demonstrated within the work of Hill and Nadel as being generally restrictive. Their novels demonstrate how the removal of barriers, for example between a purely Newtonian worldview and the Aristotelian worldview, gives a far more complete picture of the universe, increasing our understanding of the world we inhabit. However, Jardine's work shows that removal of barriers in line with the precepts of the holistic paradigm can leave one open and unprotected. A lack of barriers also creates a sensation of insecurity, instability and fear. One such barrier identified by this thesis is that between the objectivity and subjectivity. Although separate within the

Newtonian paradigm, this thesis has identified that the work of Hill, Jardine and Nadel frequently demonstrates the lack of a rigid distinction between these two states.

The quotation also raises issues regarding the nature of objectivity. While the Newtonian paradigm asserts that complete objectivity is possible, the holistic scientific paradigm refutes this. This thesis has investigated the stance adopted in the novels of Hill, Jardine and Nadel towards the concept of objectivity. Hill's work shows that complete objectivity is not achievable for his series detective Andy Dalziel, neither is it possible for Jardine's Bob Skinner. Both are frequently an integral part of the investigation over which they have charge. Whereas Dalziel can cope with his dual role, his lack of objectivity is bad for Skinner. In *Skinner's Ghosts* (1998) he himself becomes a victim. This thesis has found that the works analysed undermine the Newtonian paradigm further by demonstrating that complete objectivity is not feasible.

The second of the above quotations demonstrates another finding of this thesis: that although no longer overtly involved in scientific practice, the contemporary fictional detective is a scientist, nonetheless. That the public think of forensic science in very narrow terms is a further example of the atomism of the Newtonian paradigm. Within the Newtonian paradigm, knowledge is limited to that which can be proved by Baconian scientific method. This is how Newtonian forensic science is defined. However, this thesis has identified that for all three of the series detectives studied, Newtonian science alone is rarely enough on its own, to solve the crime. As the quotation above illustrates, other elements associated with the Aristotelian paradigm (in this case luck and patience) are required. This thesis has shown that the work of all three authors demonstrates the beneficial effects of combining elements of non-empirical knowledge systems such as intuition, magic, and psychic experience with Newtonian science provides the best method of ascertaining the solution. This interconnection of elements from different paradigms is a feature of the holistic scientific paradigm.

This research has shown that generally the work of Hill, Jardine and Nadel undermines many of the precepts of the Newtonian paradigm. Rather, their work suggests that the fusion of elements of both the Aristotelian and Newtonian paradigms within a more holistic world view provides the best route forward to a more complete knowledge better suited to the needs of the contemporary world. Within the character of Sherlock Holmes the role of the detective and that of the forensic scientist were one. The freeing

of the contemporary fictional detective from any involvement in overt Newtonian science has also released him from perceiving the world exclusively from a Newtonian viewpoint. Thus freed, he is able to include elements excluded from the Newtonian world view within his armoury in the fight against crime. He is at liberty to employ such psychic, intuitive, non-empirical knowledge systems as the case demands. His use of a greater range of knowledge systems leads him to a greater understanding of the crime and allows him to solve it more quickly.

This thesis received its initial impetus from Thomas S. Kuhn's work on scientific paradigms combined with the scholarship of N. Katherine Hayles, Martha A. Turner and Wendy Wheeler. Having defined the Aristotelian, Newtonian and holistic scientific paradigms, Chapter 1 of this thesis has contributed to knowledge in this area of scholarship by demonstrating how Kuhn's notion of scientific paradigms can be applied to detective fiction using specific examples from the genre.

The work of Hayles and Turner employs Kuhn's notion of paradigms to offer an account of the changing relationship between scientific paradigms and pre- twenty first century literature. The work of Wheeler discusses the integration of theories associated with the holistic paradigm within contemporary culture. This thesis has developed their research, applying and extending their conclusions specifically to the detective fiction genre.

The continuing popularity of the detective fiction genre as a source of enjoyment for its readership has been noted by Knight (x), Rowland (viii) and Horsley (Preface) to name but a few. The number of academic studies of the genre continues to increase (Horsley 1). However, there seem to be no studies which directly relate the development of the detective fiction genre to the Aristotelian, Newtonian and holistic scientific paradigms. Chapter 2 of this thesis presents original research in his area of study as it traces the development of the detective fiction genre in relation to the Kuhnian concept of paradigm shift.

While a limited amount of academic study has been conducted on the work of Hill (Ling's study for example), there appears to be none on either Jardine or Nadel. This thesis offers original scholarship on their work in Chapters 3, 4 and 5. One aim of these

chapters is to bring the work of these authors to the attention of other researchers whilst demonstrating that their work is of such a standard as to repay further study.

The importance of this study is threefold. Firstly, it offers new, in-depth work on three important contemporary writers, Hill, Jardine and Nadel. Secondly, this thesis provides an original study of their use of the Aristotelian, Newtonian and holistic scientific paradigms showing the participation of literature in scientific and cultural debates. The continuing popularity of the genre renders it a highly suitable medium for its readership to explore the implications of the coming holistic age. Thirdly, therefore, this study demonstrates the increasing significance of the detective fiction genre in providing a response to the problems and issues of modernity.

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