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EVOLUTIONARY ADAPTATIONS

**A thesis presented in fulfilment of the
requirements for the degree of Master of Arts at
Massey University, Auckland, New Zealand.**

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2009

Abstract.

It is the contention of this thesis that the field of adaptation studies is struggling to emerge from a restrictive, outdated and static paradigmatic framework. It proposes that the field would benefit from widening its current frame of reference to include more input and perspectives from the evolutionary biological sciences. This thesis considers the implications for the study of culture of the Darwinian theory of evolution – how it might become a more integral part of how we understand culture generally, and of how we read specific texts. It attempts to re-contextualise adaptation studies within an ongoing, conceptual paradigm shift in Western culture, initiated by Darwin's publication of his theory of evolution by natural selection. It contends that the Darwinian Revolution is far from complete within the humanities and that the time is ripe for greater consilience and exchange between the bio-sciences and humanities disciplines.

This thesis explores the current state of adaptation studies as a discipline, referring in particular to recent work by adaptation theorists such as Robert Stam, Linda Hutcheon, Thomas Leitch and Julie Sanders and their efforts to reinvigorate and redirect adaptation studies. It considers how deeply ingrained, evaluative modes of thought could be holding back these efforts, and if an updated, mutable Darwinian paradigm could aid them. This thesis also speculates on the viability of an evolutionary unit of culture, the meme, and its possible relevance to adaptation studies and the wider study of culture. Finally, it applies a Darwinian perspective, on various levels, to an extensive, detailed textual analysis of the non-fiction book *The Orchid Thief* and the film *Adaptation*.

“There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.”

Charles Darwin, *On the Origin of Species*.

“Mutation is great. It's the way evolution moves ahead. And I think it's good for the world to promote mutation as a hobby.”

John Laroche, cited in *The Orchid Thief*, by Susan Orlean.

"Change is not a choice.”

“Susan Orlean” in *Adaptation*, an adaptation of *The Orchid Thief*.

“Do I have an original thought in my head? My bald head?”

“Charlie Kaufman” in *Adaptation*, an adapted screenplay by Charlie Kaufman.

“Adaptation’s a profound process. It means you figure out how to thrive in the world.”

“John Laroche” in *Adaptation*.

Prologue: a short screenplay.

INT. ELSA MURPHY'S DINING ROOM – DAY

The dining table has been colonised by mountains of books from Massey University Distance Library. A potted paphilopedilum is in bloom in the midst of the chaos. The camera pans over some of the book titles: *Film Adaptation*; *The Meme Machine*; *Human Nature After Darwin*; *A Theory of Adaptation*; *Film Adaptation and its Discontents*; *The Selfish Gene*; *Literature and Film*; *On the Origin of Species*; *What Science Offers the Humanities*; *Darwin's Dangerous Idea*; *The Orchid Thief*; *Adaptation: The Shooting Script*. Elsa is hunched over a laptop, biting her fingernails.

MURPHY (VOICE OVER)

Is there anything to say about adaptation that's new? It's impossible to say anything new, everything's recycled. Damn, I forgot to put out the recycling. OK, so maybe not new, that's irrelevant anyway, but perhaps with a different focus... I must focus closely on the texts - I've just got to climb inside those texts and...but I've got to start from the beginning - what shape should the introduction take? And I have to get to grips with the cultural and theoretical context...can I write about evolutionary theory without getting way out of my depth? Or totally off the point...what *is* my point exactly anyway? Isn't a thesis teleological by nature? You have to know where you want to end up at the beginning, before you even get there...but I haven't got a map! OK, stop freaking out; just write something...but where do I *start*? I've got to show the *arc* of the idea – I've got to go back to the beginning and tie together all the threads. But how can I bring in the whole word/image dynamic and reference the texts and not pin myself down too much and try to approach it in a non-teleological way, from the bottom up? That's it! I've got it!

She starts frantically typing; attacking the keyboard with her stubby, nail bitten fingers.

EXT. SAINT MARY'S HOSPITAL, SOUTH LONDON.

TITLE: LONDON, 1972

CUT TO:

INT. HOSPITAL CORRIDOR

Long take. A steadicam follows a doctor along a corridor. He passes attendants, patients on gurneys, a couple of young nurses who make eye contact and giggle. His head turns fractionally as they pass. We follow him through double doors into a ward, past several beds to the far end. As we approach the camera pulls focus to a young woman in the furthest bed. She looks scared. We do not see the doctor's face, only the back of his head.

DOCTOR:

Mrs Murphy, I have good news and bad news. You were pregnant with twins. Unfortunately, you have lost one of the foetuses. But the good news is that the second foetus is hanging in there. Complete bed rest for a week or two and both you and baby will be just fine.

CUT TO:

INT. HOSPITAL BIRTHING WARD.

TITLE: FRIDAY, JULY 28, 1972, LUNCHTIME.

We see a baby being born. It has a lot of black downy hair. It is screaming lustily.

NURSE:

It's a girl.

CUT TO:

INT. CLASSROOM.

TITLE: 12 YEARS LATER. ALTON CONVENT OF OUR LADY OF PROVIDENCE, ENGLAND. BIOLOGY CLASS.

30 girls in neat, royal blue uniform are sitting at benches, scalpels in hand. 15 frog cadavers are before them, one between two. A girl holds up her hand.

12 YEAR OLD MURPHY:

Sister Helen, I feel sick, can I be excused?

SISTER HELEN:

But Elsa, surely you want to see the glory of Our Lord's creation? It really is a wondrous sight to behold. Such intricate design. Don't be afraid now child.

MURPHY:

But I'm a vegetarian Sister. Besides, my dad said I shouldn't have to do dissections if I don't want to. It's against my human rights. And anyway I saw this documentary on BBC 2 last week about evolution and this bloke called Darwin, he's the evolution chap, he said that we all come from monkeys and frogs and amoeba and stuff so really Sister, I can't dissect that frog 'cause he might be my long lost great-great-grandfather's second cousin twice removed or something.

(Giggles from the other girls)

But seriously, evolution isn't in our text book, I looked it up in the index. How come Sister?

SISTER HELEN:

That's quite enough from you for one lesson Elsa, thank you. You may be excused.

CUT TO:

INT. LIBRARY.

Young Murphy and a couple of her friends are talking in hushed voices.

FRIEND 1:

Well, we have to take Maths, English Literature, English Language, Biology and Religious Education. I'm going to do Chemistry, Physics and Law as well as the 5 compulsory subjects. What are you going to do?

FRIEND 2:

Gosh, you're so brainy. I'm choosing French, Art and Sociology. I can't wait to stop Chemistry with that bastard Mr Pluck. It's in the same timetable slot as Art anyway, and that's my favourite class. Do you reckon Mr Pluck's having it away with Miss Williams, the new Art teacher?

MURPHY:

Ew, gross. I wish we could stop Biology as well, it's so boring. That lesson on the facts of life was a joke. Maybe they should bring in Mr Pluck and Miss Williams for a practical demonstration, like in *Monty Python's Meaning of Life*. Anyway, I haven't a clue what's going on, Sister Helen keeps locking me in the lab cupboard for talking too much. It's spooky in there, all those pickled frogs and embryos and eyeballs in jars looking at me. I wouldn't mind doing Physics actually, but it clashes with Performing Arts, you can't do both. French, Sociology and Performing Arts I suppose.

CUT TO:

INT. UNIVERSITY CAMPUS PUB.

TITLE: UNIVERSITY OF EAST ANGLIA, 8 YEARS LATER

Several students huddle around a table drinking pints of lager and smoking rolled-up cigarettes. It's raining outside.

MURPHY:

Oh my god, I really should hit the library, I've got an essay on auteur theory due tomorrow morning.

MALE FRIEND:

Stay and have another pint first. I want to tell you about this amazing book I've been reading. It's called *The Selfish Gene* and it's about how we're all just these vehicles for our genes, like we're their survival machines, just keeping the genes alive and spreading them around

MURPHY:

You *wish* you were spreading them around, more like. Some survival machine you are. Oh, alright then, but it's your round.

CUT TO:

INT. HOSPITAL WARD.

TITLE: TAURANGA HOSPITAL, NEW ZEALAND, 8 YEARS LATER

Elsa and her partner Hamish are handed a new born boy. He lies quietly in their arms, looking at them.

HAMISH:

He looks just like you did in those photos at your mum's. All that black hair. He's really looking at us isn't he? I thought they couldn't see very well yet. He's very quiet.

CUT TO:

INT HOSPITAL WARD

TITLE: TAURANGA HOSPITAL, NEW ZEALAND, 3 YEARS LATER

Elsa and Hamish are handed another new born boy. He is red-faced, screaming and writhing.

MURPHY:

He looks just like you.

CUT TO:

EXT. CINEMA

It's a small, 'art-house' cinema. The signage reads: Now showing – Charlie Kaufman's *Adaptation*. Elsa Murphy and a female friend exit the front doors to the street.

FRIEND:

That was bizarre. Did the writer really have a twin that died d'you think? I thought he was made up but he was credited and everything.

MURPHY:

I don't know...I don't think so. I'll look it up on the internet when I get home. I'll have to watch that again a few times. Not sure what to make of it yet. Have you read *The Orchid Thief*? Wasn't that Laroche guy hilarious? "Fuck fish!"

They laugh.

CUT TO:

INT. CAR

The car stereo is playing *The Wheels on the Bus*. In the back seat are two boys, aged about 5 and 2. The eldest, Harper, is carefully writing his name on the steamed up car window. The youngest, Viggo, is pretending to drive the car with an imaginary steering wheel and gear stick, making loud revving noises and beeping a lot.

HARPER:

Mummy, who's God? Ethan says he has to talk to God every night before he goes to bed. He told God he wanted a new Optimus Prime transformer for Christmas. Is he like Santa then? Can I ask God for a Ben 10 watch?

The camera zooms in on Elsa's reflection in the rear view mirror. She does a double-take, looking horrified. It's straight out of *Taxi Driver*.

MURPHY (VOICE OVER)

Oh Christ. Here goes...

CUT TO:

INT. ELSA MURPHY'S DINING ROOM.

Elsa Murphy is frantically typing on her laptop. Suddenly, she stops.

MURPHY (VOICE OVER)

This is insane. I'm writing myself into a thesis. I must be going mad. Thesis neurosis. Right, scrap that. I'll just start with an overview of the evolutionary science I've been reading about and the current state of adaptation studies, then I'll get into the texts and - oh no is that the time? I'll be late for the kids.

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Chapter One:

Context/Subtext.

What is adaptation? Very simply put, adaptation is a process of continual change; external changes to environment and internal changes in response. Adaptation is the very stuff of life, an absolute necessity for survival. Adaptation fuels evolution. The question posed in this thesis is: are cultural, textual adaptations all that different from biological ones? When viewed as functions of an evolutionary process they are both natural and necessary. Yet many people's responses to adaptations of texts from one medium to another, particularly of celebrated literature adapted into film, are profoundly hostile. Global film culture consumes a huge number of cinematic adaptations of literature, but the critical reception of them is often overwhelmingly negative. There seems to be a strong insistence, even in this post post-modern age, on the cultural superiority of the original text, the individual author and the written word. Adaptation theorist Robert Stam, in "The Roots of a Prejudice" (2005), notes that "the conventional language of adaptation criticism has often been profoundly moralistic, rich in terms that imply that the cinema has somehow done a disservice to literature" (Stam, 2005, p.3).

The love-hate relationship between the public, the critics and adaptations is a complex and contradictory one. On the one hand, adaptations of literature dominate the box office and appear to borrow gravitas and cultural value from their literary sources. This is strongly suggested by the overwhelming number of adaptations that are nominated for – and win – the Academy Award for Best Picture, which so powerfully influences the popular perception of a film's quality.¹ Yet from the critical perspective, and in the public eye, the film progeny almost inevitably remains the poor relation to the literary parent. Even when the critical reception of an adaptation is favourable, the priority of the adapted text remains unassailable and the adaptation is ultimately perceived as inferior in one way or another. Examples of typical responses to adaptations can be

¹ Only 22 of 81 Best Picture winners have been films from original screenplays. In 2008, 4 out of 5 nominees for Best Picture, including the winner, were adapted from a novel, short story or play (original research sourced from http://awardsdatabase.oscars.org/ampas_awards/).

found in abundance on the internet. *The Screening Room*, a CNN.com film blog, recently invited contributions on the topic of film adaptations of literature. The blog included a short article in which it named “director Fernando Meirelles’ new film *Blindness* [...] the latest example: an ambitious adaptation of a classic novel that has fallen short of the mark” (Sorel Cameron, 2008). It then asked its readers “Can a great novel become a great film?” Some of their responses follow:

Seth Chandler November 19th, 2008 1215 GMT

The reason a great book turns into a lackluster film is quite simple: Directors have no respect for writers. Instead, they think THEY are authors and that a book is just an outline to play with.

cris s November 19th, 2008 1241 GMT

At the risk of sounding excessively simplistic, books are books and films are films. They are different things, different means of representation. A novel that is adapted into a movie is a whole new thing when it is a movie. A film works under different narrative rules and codes. That is why people usually get disappointed when they watch a movie based on a novel - they expect it to live up to it. And it doesn’t, naturally.

john koenig November 19th, 2008 1648 GMT

The problem is that they always have to change the story line in some way.

jason November 20th, 2008 001 GMT

books, like people, can be extremely complex and detailed and subtle, and can take a dozen hours to get through, even if you read fast. you have time to take in personalities, settings, and ideas. actors and movies are almost always hit you over the head obvious, and have to wrap up in an hour and a half with a nice little moral or guy gets girl/saves the world ending.

sammy November 20th, 2008 010 GMT

I think the matter is as simple as that novels are verbal and long, and movies are sensory and relatively short. A good writer makes every possible use of their medium, and so if good narration is adapted visually a lot is lost. (Sorel Cameron, 2008)

These responses neatly encapsulate some key themes of adaptation discourse: the perceived conflict between the linguistic and the visual media, the thorny question of authorship, the temporal and genre restrictions of the Hollywood movie. The contributors and the CNN journalist who posted the blog are united in their perception of adaptation as a process of degradation, to varying extents, and in positing literary sources as pre-extant targets to reach or “live up to”.

In *Film Adaptation and its Discontents* (2007), Thomas Leitch cites contributors to a university website responding to the 2004 Mira Nair adaptation of *Vanity Fair*. While their comments are more academically phrased than those of the CNN blog contributors, they are not hugely dissimilar in tone or content. Leitch summarises them as follows:

Despite their differences of opinion, all these statements [...] ignore fifty years of adaptation theory in their uncritical adoption of the author’s intention as a criterion for the success of both the novel and any possible film adaptation [...] preferring evaluation to analysis in considering films in general and adaptations in particular. Although it is unlikely that these commentators [...] would defend these positions as theoretical principles, they do not hesitate to use them in practice. (Leitch, 2007, p.2)

Such responses attest to the existence of a common preconception of adaptations as “belated, middlebrow or culturally inferior”, as James Naremore puts it (Naremore, 2000, p.6). His fellow adaptation theorist, Linda Hutcheon, suggests that this may be simply because adaptations are, in temporal terms, secondary – as if anteriority were synonymous with superiority (Hutcheon, 2006, p.xiii). Both Hutcheon and Naremore question why such notions of the originary and the secondary persist, despite having been challenged by many of the theoretical discourses prevalent in the humanities in the latter half of the twentieth century (Hutcheon lists intertextuality theory, deconstruction, narratology and cultural studies; Naremore post-structuralist theory). Their comments

connect with Leitch's recognition of a gap between theory and practice in adaptation critique. Their failure to properly uproot the simplistic, linear understanding of adaptation as a route of degradation suggests to me that its roots go to a depth that those theories cannot reach. This thesis will contend that the "universal acid" (Dennett, 1995) of Darwinian evolutionary theory might be applied to plumb those depths. Chapter Two will discuss what this universal acid is, and how far and wide it has already, and might continue to, spread.

There are, of course, a few notable exceptions to the rule that the adapted text is superior to the adaptation. Francis Ford Coppola's *The Godfather* series, based on the Mario Puzo pulp crime novel, has achieved a much higher cultural status and stronger hold in the collective memory than the novel. Hitchcock's many adaptations of little known or "pulp fiction" novels and short stories, including *Psycho*, *The Birds*, *Vertigo* and *Rear Window*, have not only outlasted their sources but achieved the status of cinematic classics. In these relatively rare cases, the prior text is usually assigned a low cultural value to begin with, and the status and authority of authorship are transferred to the film's celebrated director/auteur. This reversal is not the rule, however, when the adapted text is perceived to belong to a genre of popular fiction and entertainment. Adaptations of popular comics, such as *Spiderman*, *The League of Extraordinary Gentlemen*, *Watchmen* and *Batman*; or of popular fantasy novels and children's fiction, such as the *Harry Potter* series and *The Lord of the Rings*; or even of TV series such as *Star Trek* often meet with even more passionate resistance (from the very fan bases they hope to capitalise upon) than adaptations of "classics".²

While there are some cases of film adaptations of popular fiction being perceived as superior to, or at least worthy of, the adapted text, similar cases of critically esteemed, high brow literature and canonical classics being considered equal to the book are almost nonexistent. Why, then, are they produced and reproduced so often and why does the public consume them so avidly amidst so much critical controversy? There is an obvious motivation for filmmakers to swathe themselves in the borrowed glory of acclaimed adapted texts in order to appeal to middle class movie-goers (and garner

² For a fascinating insight into the challenges faced by adapters of hugely popular works of fiction I refer the reader to *Empire* magazine's interviews with Sam Raimi, director of *Spiderman 1*, *2*, and *3* (July 2002, August 2004); to their series of articles on the making of *The Lord of the Rings* trilogy (January 2002, September 2002, October 2003); and an article on the power and influence of book/comic/movie fansites in general (September 2004).

awards “buzz”). Similarly, adapters of popular fiction are banking on large, ready-made markets in the fan-bases already attached to the adapted text. These market forces are undoubtedly an important part of the story, but surely not the whole story. After all, humans have always adapted stories in one form or another, from ancient mythology and the oral narrative traditions to Shakespeare and beyond, and in hugely varying cultural and economic environments. There appears to be a deep human need to tell and to retell (and to re-hear) stories over time and in different contexts. One has only to experience a child’s clamour to hear the same stories (often stories that have been adapted into many different versions and stories about characters that have been transposed to many different texts) retold again and again to see that adaptation functions on deeper levels, and with other motivations, than the financial. Overall, the contradiction between the evident demand for adaptations and the widespread rejection of their cultural value suggests to me that there is a wider context and deeper subtext to be explored.

While I certainly do not wish to reinforce the narrow focus of adaptation studies on literature adapted into film, this type of adaptation (as opposed, for example, to the adaptation of a film into an interactive game or vice versa, or of the songs of Abba into the stage and film musicals *Mamma Mia*) can arouse passions that seem disproportionately strong, considering that the issue is not a matter of life or death. Or is it? Perhaps there is more at stake than at first seems apparent. I hope, in this thesis, to pull focus and experiment with an alternative perspective on adaptations – one that does not assume a linear route from source text to adaptation and that does not view adaptation as a process of degradation. To enable a broader, more positive and progressive perspective, I propose that the field of adaptation studies should widen its current frame of reference to include more input from the evolutionary bio-sciences. To test this proposition will require a broad theoretical enquiry into both areas, which will be followed by an extensive textual analysis of two inter-related cultural texts: *The Orchid Thief* by Susan Orlean and *Adaptation*, a film written by Charlie Kaufman and directed by Spike Jonze. To move ahead in this direction, I think it necessary first to go back and examine the possible roots of the entrenched hostility towards filmic adaptations of literature which has dominated this field of study and narrowed its scope. To do so, I am going to cast a very wide net. Please bear with me.

Chapter Two:

The Darwinian Paradigm: The Evolution of a Dangerous Idea.

As Galileo Galilei knew to his great personal cost, humans are generally conservative and slow to accept radical changes to their world view. Approximately two and a half centuries later, and in some circles to this day, Charles Darwin was widely, vehemently vilified for what Daniel Dennett has called his “dangerous idea” (Dennett, 1995): the theory of evolution by natural selection. Until the last possible minute he held back from publishing his theory, despite the body of evidence he had accumulated, fearful of how it would be received. Ironically, it was fear of being pre-empted by another author of evolutionary theory, Alfred Russell Wallace, which forced him to stop procrastinating and publish. After the publication of *On the Origin of Species* (1859) which was widely read and caused something of a publishing sensation, Darwin became increasingly withdrawn and suffered from a curious, undiagnosed disease that many have speculated was psychosomatic or stress related. Darwin was fated to be the bearer of tidings that would cause one of the greatest, and most traumatic, revolutions in the history of human consciousness.

The twentieth century science historian and philosopher Thomas Kuhn instigated a major paradigm shift of his own when his work altered the way scientific progress is generally viewed. In *The Structure of Scientific Revolutions* (1962) he argued compellingly against the empiricist view of science as an objective progression toward the truth. Instead, he claimed that science goes through periods of stability, or “normal science”, during which progress is slow and steady, and that these are punctuated by violent revolutions in which the old paradigm is usurped by a new paradigm. The shifts from the Ptolemaic paradigm of cosmology to the Copernican one and from Newtonian physics to Einsteinian relativity are examples. The Darwinian Revolution, although Darwin preceded Einstein, is still far from being completed.

What is a Kuhnian paradigm exactly? The relevant Oxford English Dictionary definition is “A conceptual or methodological model underlying the theories and

practices of a science or discipline at a particular time; (hence) a generally accepted world view.” The following summary helps to clarify further:

what can count as a fact – what can be ‘observed’ in the context of scientific inquiry – is to a certain extent determined by the scientific theory to which one is committed. The objectivist story of the development of physics, for example, is that Newtonian physics was superseded by Einsteinian physics, which explained everything Newtonian physics could plus more. In this understanding, Newtonian physics should be derivable from Einsteinian physics as a special case – that is, as Einsteinian physics applied at a certain macro physical scale. Kuhn points out that this simply is not the case, that the physical referents of the two theoretical paradigms are fundamentally different. “Successive paradigms tell us different things about the population of the universe and about that population’s behaviour,” he observes, which means that each paradigm will have its own unique ontology and its own standards of what counts as a solution to a problem. (Slingerland, 2008, p.65)

According to Kuhn, scientists (and by extension, anyone involved in intellectual and philosophical inquiry) can only tackle problems from within the parameters of the current paradigm. When anomalies start to accumulate that cannot be adequately explained from within that paradigm, its parameters are tested. While the majority will rigorously defend the old paradigm and try to find ways to explain or dismiss the anomalies from within, some will start to find more radical alternatives and a new paradigm will emerge as these become successful. The two paradigms may co-exist for some time until the conflict is resolved.

Furthermore, Kuhn argues that when the referents of consecutive paradigms are fundamentally different, then the paradigms are *incommensurable*, that is, they cannot communicate with each other in the same language, so to speak. The new paradigm necessitates that new terminology is generated. To my mind, this raises interesting questions about some of the terminology used within the humanities – specifically, for my focus here, about some of the terminology used in adaptation studies.

Kuhn’s terminology and perspective, emphasising epistemology rather than empiricism, bring the sciences and humanities closer together, in so far as they make a dialogue

possible in a language that both can speak. However, the interface between the humanities and sciences, especially the evolutionary biological sciences, has only been inaugurated in the past thirty years or so and there are still many gaps to be negotiated. The science of linguistics has been hugely influential in the humanities over the past few decades, but as it is becoming more deeply influenced by cognitive science, evolutionary anthropology and evolutionary psychology, the fields of cultural study it informs will need to stay abreast of rapid developments in those areas. The traditional segregation of disciplines in the past has impeded, to date, the development of an interdisciplinary, evolutionary epistemology that could potentially take the humanities in fascinating new directions. This has also been the conclusion arrived at by members of what has been dubbed the Literary Darwinist movement, who have noted stubborn resistance to evolutionary theories of culture invading the study of art and literature, as I will discuss later in this chapter.

Kuhn's revision of the history of science has been widely assimilated into Western culture, as the adoption of the term *paradigm shift* into the common vernacular attests. An over-simplified, superficial interpretation of his theory of paradigm shifts might appear to support the contention that science is essentially relative; that each new paradigm is simply a different, not necessarily a better one. This would seem to promote the notion that science is merely a theoretical and speculative pursuit with no special epistemological status. Kuhn himself became so frustrated with the over-simplification of his ideas that he was moved to declare that he was not a "Kuhnian". Some of those interested in discrediting evolutionary theory have seized upon the perceived relativism of Kuhn as ammunition in the "Darwin Wars" (Brown, 1999). Using relativistic logic there is no reason why astrology (credited as a science before Newton) or Intelligent Design should not be taught in schools as well as, or instead of, evolution. Of course, if you go a little further down that path you might also argue for the teaching of pre-Copernican cosmology or even Terry Pratchett's Discworld universe – with a huge disc riding on the shoulders of four enormous elephants, in turn carried through space on the back of a giant turtle. It is as much of a philosophical dead end as taking Descartes' polemic of the "evil genius" too literally. Radical scepticism and extreme relativism are closely connected and while they may have their uses within philosophical debate they are theories that are ultimately self-defeating and inapplicable (Radcliffe Richards, 2000, pp.32-38).

Despite the radical reappraisal of the scientific process offered by Kuhn, the practical applications of science can be observed and experienced and scientific methodology involves rigorous testing and falsification processes. Accepting that we all operate within paradigms that shape and restrict our mode and method of thinking does not mean that science does not progress and improve. In Edward Slingerland's assessment: "Kuhn's observations are an important corrective to naive positivistic accounts of scientific methodology and theoretical progress" (Slingerland, 2008, p. 245). However, even if scientific progress does not accumulate in a linear way, this does not mean that we are not creating better and better paradigms for dealing with the world we inhabit. And if scientists could observe *nothing* in the world except through the prescribed view of their paradigm, then how could paradigm shifts be possible? Paradigm shifts enable new ways of thinking, resulting in new scientific theories that have *real* applications in human life. New paradigms *are* superior to older paradigms when we observe what is achieved from within them. An astronaut who has seen Earth from space might make an interesting riposte to anyone claiming that Ptolemaic cosmology is as equally valid as post-Galilean cosmology. And as Janet Radcliffe Richards quips: "Nobody can be a full time relativist". Given the choice of being operated upon by a trained surgeon or witch doctor, most relativists would prove to be only part-time ones (Radcliffe Richards, 2000, p. 49).

Scientific revolutions are periods of time in which the old paradigm is defended by a variety of methods and with varying degrees of tenacity before being ousted successfully. Within the scientific community, Darwin's theory was actually welcomed by many of his peers, as it solved so many previously insuperable problems. However, The Darwinian Revolution is one that has been particularly stubbornly resisted by many factions of society. 150 years on, evolution by natural selection is a scientifically proven fact of life, with vast implications for humanity, which is disbelieved or very imperfectly understood by a large number of people. Even in Britain, Darwin's birthplace, a survey conducted this year, the 200th anniversary of his birth "showed that only around half of all Britons accept that Darwin's theory of evolution is either true or probably true" (Lessons Still to be Learned, 2009).

Ever since Darwin's theory exploded into the collective consciousness, Creationists have waged war on evolution. The recent Creationist, pseudo-scientific manifesto

“Intelligent Design” (and attempts to include it in the US high school science curriculum) is testament to the enduring power, creativity and influence of denial. The key strategy of the Intelligent Design movement, led by conservative think tank The Discovery Institute, is to convince the general public that there is a controversy about the fact of evolution within the scientific community. In fact there *is* scientific consensus that life evolved; the debate that continues within the scientific community is not about “if” evolution occurs, but “how”. There is also fierce debate about the degree to which evolution shapes human psychology. However, the creation/evolution controversy is a cultural and philosophical, rather than a scientific one. While the fundamentalists are in a minority and most Christians accept (with very significant qualifications) that life has evolved, evolution still, after 150 years, has not infiltrated mainstream culture to the degree one might expect of such a far reaching and hugely well evidenced theory.

Why is Darwin’s “dangerous idea” so very dangerous? Why do people resist it so vehemently? What is at stake? In *Darwin’s Dangerous Idea: Evolution and the Meanings of Life* Daniel Dennett ruthlessly clarifies the issues at stake. The assumption that a higher intelligence, a non-material being, is necessary to explain the origins of life is termed the *Mind First* attitude. Before Darwin’s theory of natural selection there was no explanatory fabric to provide the mechanics of how evolution works. Even though ideas about evolution had been around for centuries, no one could see how it might be possible. In the absence of such an explanatory fabric, a cogitative being, a designer, seemed obvious and necessary. Creation was a completed, a priori act. This way of thinking is *teleological*, from the Greek *telos*. Dennett describes a teleological explanation as “one that explains the existence or occurrence of something by citing a goal or purpose that is served by the thing” (Dennett, 1995, p. 24). Teleology starts at the end to explain the beginning and everything in between. All life can thus be explained as serving the (unknown) purposes of a cognitive being who designed it. One of the problems with this is that it fails to explain the existence of the designer, hence it becomes “a vicious circle or an infinite regress” (Dennett, 1995, p. 70).

Teleological explanations are often used to answer *why* questions, but they can be problematised by *how* questions. What Darwin offered was an inversion of teleological reasoning – he provided the *how*, showing how design could accumulate without

purpose via natural selection. What Darwinian thinking does then, is to provide what Dennett terms *cranes* as opposed to *skyhooks*. Both kinds of device serve to explain how such incredible complexity could exist. Where skyhooks descend from above to lift us up, however, cranes start on the ground and raise us up slowly and incrementally from below. A skyhook is a device born out of a Mind First attitude. Tellingly, Dennett likens it to the *deus ex machina*, the great narrational cheat by which a miraculous solution to a narrative problem arrives in the form of a god descending from the heavens or an implausible coincidence or stroke of luck.

Some of these ideas and terminology seem to me to be pertinent to the processes of adaptation, as I will discuss later. What Darwin's crane – natural selection – and inversion of teleology ultimately threaten, then, is the removal of the necessity for skyhooks, for a higher power or intelligent designer, altogether. Not only religion is threatened. To return to the eminently readable Dennett: Darwinian thinking is a *universal acid*, "a liquid so corrosive it will eat through anything" (Dennett, 1995, p. 63). Nothing can contain a universal acid: "it eats through just about every traditional concept, and leaves in its wake a revolutionized world view, with most of the landmarks still recognizable, but transformed in fundamental ways" (Dennett, 1995, p. 63). Darwin's idea has not only transformed biology, it is eating through other disciplines.

Darwin's idea had been born as an answer to questions in biology, but it threatened to leak out, offering answers – welcome or not – to questions in cosmology (going in one direction) and psychology (going in the other direction). If *redesign* could be a mindless, algorithmic process of evolution, why couldn't that whole process itself be the product of evolution, and so forth, *all the way down*? And if mindless evolution could account for the breathtakingly clever artefacts of the biosphere, how could the products of our own 'real' minds be exempt from an evolutionary explanation? Darwin's idea thus threatened to spread *all the way up* dissolving the illusion of our own authorship, our own divine spark of creativity and understanding. (Dennett, 1995, p. 63)

Darwinian thinking deconstructs the notion of the author-god completely, cutting it off at the root and at the head. As mentioned in the previous chapter, theorists of adaptation have questioned why ingrained notions of the originary and the secondary, and of

authorial intentionality as an evaluative, have persisted despite all attempts of theory to debunk them. Is the universal acid of Darwinism, then, what will finally dissolve them?

If Dennett is correct in his assessment of Darwinian thinking as a universal acid, then conservative modifications of old paradigmatic constructions will only postpone the inevitable: radical ontological and epistemological reappraisal in *all* disciplines. The humanities cannot be quarantined from the wider spread and deeper infiltration of the Darwin epidemic once evolutionary theories of culture gather greater momentum.

In *Human Nature after Darwin* Janet Radcliffe Richards delineates the range of positions that can be taken in the spectrum of rejection/acceptance of Darwinian thinking, by defining the scope of what it might explain about human life. Between the poles of Anti-Darwinism and Ultra-Darwinism she draws three boundary lines. The first is the Darwinism boundary, which only religious fundamentalists, who interpret the Bible's account of creation literally, do not cross. Beyond this boundary dwell the Mind First, dualist Darwinists, who "accept the Darwinian account of organic evolution [...] but nevertheless insist that skyhooks cannot be removed from the situation entirely" (Radcliffe Richards, 2000, p. 55). This is the position that most Christians take. The next boundary is the most significant. She calls it the Materialism boundary. This marks the abandonment of the Mind First idea. To cross this boundary is to embrace a materialist account of the origins of life and dispense with skyhooks altogether. Personally, this is a boundary I have irrevocably crossed, only to find that there is a vast and complex territory beyond still to explore.

The final (as yet) boundary is between those Darwinists who disagree on how far Darwinian theory can explain human nature and culture. These are broadly defined as *blank paper* and *gene-machine* Darwinists. The blank paper – or standard social science – theorists assert that although human origins are entirely Darwinian, humans have now evolved to a stage where we are ultimately creatures of our culture, and that our nature can mostly be understood in terms of social environment. They deny that our evolutionary background can contribute much to an understanding of human nature as it is now. The more radical, gene-machine Darwinists disagree, believing that our evolutionary past remains deeply ingrained in our nature. Socio-biologists and evolutionary psychologists belong in this radical Darwinist category. It is on this

boundary, or fault line, and across it that things get really interesting and explosive, and it is an extremely complex terrain to negotiate.

There is, understandably, passionate resistance to the universal acid eating through our most personal sense of ourselves. Politically, economically, socially and culturally – the potential ramifications are hard to conceive of, let alone digest. Yet, if one has crossed that crucial Materialism boundary, to not allow oneself to contemplate the most corrosive effects of the acid would appear to expose a lack of integrity or courage to explore the new territory one inhabits. Edward Slingerland calls the reluctance to confront the issues head-on the wish to have our “evolutionary cake and eat it too” (Slingerland, 2008, p. 255). He contends that the Creationists are actually ahead of the curve from liberal intellectuals who willingly defend Darwinism in the classroom but gloss over the deeper challenges that it poses to our concept of the universe and humanity. The Creationists recognise the threat only too clearly. As Dennett (in characteristically unflinching style) puts it: “if we concede to Darwin our bodies, can we keep him from taking our minds as well?” (Dennett, 1995, p. 65). Much as one might not wish to concede as much, how can we judge what we will find on the other side if we refuse to look over the boundary? And if one wished to stage a resistance, one would in any case need to know the enemy better. The scientists have the edge on us in the humanities; they live in the world of culture far more than we live in the world of science and speak our language far more fluently, in general, than we do theirs.

For those who feel that Universal Darwinism makes personal, cultural and social human endeavour seem somewhat futile, perhaps perspective and comfort may be gleaned from the following passage:

Anyone who worries about “genetic determinism” should be reminded that virtually all the differences discernible between the people of, say, Plato’s day and the people living today – their physical talents, proclivities, attitudes, prospects – must be due to cultural changes, since fewer than two hundred generations separate us from Plato. Environmental changes due to cultural innovations change the landscape of phenotypic expression so much, and so fast, however, that they can in principle change the genetic selection pressure rapidly [...] Although it is important to remember how slowly evolution works in general, we should never forget that there is no inertia at all in selection pressure

[...] Cultural evolution operates many orders of magnitude faster than genetic evolution. (Dennett, 1995, pp. 338-339)

In principle, culture can effect evolutionary change on the genetic level, by virtue of the fact that it can affect the genetic selection pressure so quickly by altering our environment and lifestyle. The determinism need not be *all* one way traffic from the material to the cultural. Accepting that the origin of life and the fundamental mechanism of evolution is a simple algorithmic process – a mechanical, physical one – does not require us to ignore or cease to marvel at the infinite complexity and intricacy of life as we know it now. In fact, viewed from this perspective (without prescribed negative assumptions about what it will inevitably tell us) the complexity of life, of individual humans and of human culture is cast in a truly marvellous light. If we accept that we are – on one, fundamental level – gene machines, this does not exclude the many other things that we are. Evolutionary thinking is only reductionist if a reductive view is the one that we choose to take.

Janet Radcliffe Richards debunks the charge of reductionism, oft-hurled at evolutionary psychology and materialism generally, with clarity and aplomb.

Accusations of reductionism are usually just *assertions* made as though it were clear both what they meant and why they were to be understood as criticisms. But since neither of these matters is usually in the least clear, the only productive way to take the issue forward is to get the accuser to clarify exactly what the accusation is supposed to be [...]. A reductive explanation is one that explains a set of phenomena by reference to a more fundamental level of explanation and uses quite different terminology [...]. There is, therefore, a clear sense in which Darwinian explanation – like all scientific explanation – is reductive. [...] Evolutionary psychology is reductive in explaining our mental and emotional attributes in terms of the survival strategies of genes. But explaining one thing in terms of another does not give any justification for using ‘reductionist’ as a term of abuse. If that were generally reasonable you could criticize medicine for [...] explaining illnesses in terms of bacteria and viruses and genes [...]. (Radcliffe Richards, 2000, p.179)

In the context of a discussion of altruism – whether altruism has evolutionary origins and, if so, whether or not it is truly altruism – Radcliffe Richards distinguishes between two kinds of explanation of phenomena:

Some explanations simply explain one thing in terms of another, throwing light on its origins or nature without in the least implying that the thing being explained is in any way illusory; others explain things in ways that debunk them, and show them to be not what they seem. My impression is that the accusation of reductionism comes of mistaking the first kind for the second [...]. (Radcliffe Richards, 2000, p.180)

Examples of such mistakes are thinking that a Darwinian explanation of the mind in terms of the laws of physics means that *only* the language of physics is applicable to a discussion of minds, that the emotions of love are simply an illusion because the origins of sexual love can be explained in terms of evolution, and that altruism is also illusory for the same reason. “Explaining is not the same as explaining away. A successful scientific explanation does not prove that the thing it is explaining does not exist. It only shows that rival explanations, *competing on the same ground*, are false” (Radcliffe Richards, 2000, p. 180). As she goes on to assert, debunking explanations of altruism (which allege that selfish motives underlie apparently altruistic acts, thus proving that the supposed altruism is illusory) are very different from explanations of how altruism came to exist. By extension, Dawkins’ explanation of our origins as survival machines built by genes is not an explanation that presupposes that we are

only gene machines: gene machines *rather than* conscious intelligent beings who are strongly influenced by the material and cultural environment, and capable of abstract reasoning, and subject to strong passions. He is only saying that this is the mechanism by which these things came into existence, and that if we understand their origins we can make a better job of understanding their nature. (Radcliffe Richards, 2000, p.181)

The humanities may have been resistant, on the whole, to being burned by the universal acid of Darwinian thinking, but there are a growing number of those who welcome the encroachment of science into the arts. In a recent online talk, the philosopher Denis

Dutton, asserted that the human personality, and its creative, imaginative and aesthetic aspects, is crying out for a Darwinian explanation.

Darwinian aesthetics is not some kind of ironclad doctrine that is supposed to replace a heavy post-structuralism with something just as oppressive. What surprises me about the resistance to the application of Darwin to psychology, is the vociferous way in which people want to dismiss it, not even to consider it. Is this a holdover from Marxism or religious doctrines? [...] Stephen Jay Gould was one of those people who had the idea that evolution was allowed to explain everything about me, my fingernails, my pancreas, the way my body is designed – except that it could have nothing to say about anything above the neck.
(Dutton, 2009)

Dutton makes the point, in his complaint about Gould, that resistance to Darwinian explanations of human minds and culture is not coming exclusively from the humanities – there are those in the sciences who are reluctant to let Darwin “take our minds” as well as our bodies – and he also questions the ideological grounds for this resistance. I will pursue this line of questioning in the following chapter, framing it within the context of adaptation studies.

As mentioned earlier in this chapter, there is a small but burgeoning movement in literary criticism, heavily influenced by evolutionary psychology and dubbed Literary Darwinism. Edward O. Wilson, the Harvard biologist at the centre of the socio-biology controversy in the 1970’s and the writer of *Sociobiology: the New Synthesis* (1975) and *On Human Nature* (1978) is an inspiration to the movement, which includes Joseph Carroll, Jonathan Gottschall and Brian Boyd. They have taken up his calls for “consilience” between the sciences and humanities disciplines.

A clear introduction to how and why evolutionary psychology has spawned Literary Darwinism can be found in Jonathan Gottschall’s *The Tree of Knowledge and Darwinian Literary Study* (2003). Using the tree symbol to demonstrate the branching of disciplines of thought from roots through trunk to foliage, Gottschall argues for greater mutual consistency between disciplines. Positing the humanities and social sciences as the green canopy, he argues that “scholars from all disciplines have mostly proceeded as though the greenery above was the outgrowth of a neighbouring tree from

a fundamentally different species” (Gottschall, 2003, p.1). However, this is changing as Darwinian thinking creeps up the tree. Gottschall summarises the Darwinian revolution in the social sciences since the 1970’s: “allegations and recriminations of the most serious sort have been almost casually poured into the air: racism, sexism, Social Darwinism, biological determinism, disciplinary colonialism, disciplinary xenophobia, and “biophobia” (Gottschall, 2003, p.2). Despite this, evolutionary thinking now has an established place in the social sciences, he argues, but it is not yet being utilised in the humanities.

Gottschall believes that it is time for the humanities “to move past the defunct Rousseauian paradigm [and] to embrace new central hypotheses anchored in the scientific study of human nature” (Gottschall, 2003, pp.4-5). He sees the failure of literary studies, his particular discipline, to use Darwinian theory as a tool for textual analysis as a missed opportunity, arguing that it offers exciting insights into character behaviour, the repetition and variation of plots and themes and, ultimately, the reasons why humans spend so much time telling stories. Evolutionary psychology, he argues, is the logical replacement for previous psychoanalytic approaches to textual analysis, one that is “tied into a web of mutually reinforcing, falsifiable hypotheses in the biological and social sciences” (Gottschall, 2003, p.5). Gottschall has written several textual analyses using evolutionary psychology as his tool, notably a treatment of *The Iliad* (Gottschall, 2001) which is both illuminating and highly entertaining.

Gottschall believes that the reasons why evolutionary psychology has been resisted by the humanities are multiple and include a traditional rivalry between science and humanities; a conception of the humanities as being beyond the realm of science; ignorance and fear about biological theories of culture that caricature them as manifestations of Social Darwinism; and the charge of reductionism – the perceived boiling down of complexity to “an insipid broth of selfish genes” (Gottschall, 2003, p.6). Gottschall claims that the most immediate reason, however, is that postmodernism was being established as the dominant theoretical mode in the humanities at the same time as the Darwinian revolution was causing so much controversy in the social sciences. Gottschall is not alone in deeming postmodernism a major obstacle to the establishment of Darwinism in the humanities. Edward Slingerland’s assessment of postmodernism is that its “extreme relativism” ultimately renders it “intellectually

vacuous” (Slingerland, 2008, p.5). Slingerland argues that postmodernism is inherently dualistic and has been an epistemic barrier to consilience.

What Science Offers the Humanities argues for the reintegration of mind and body through consilience or the “vertical integration” of the natural sciences with cultural study. Slingerland deconstructs objectivist realism and postmodern relativism, both “dualistic epistemologies”, in order to pave the way for this goal. He goes on to discuss developments in the cognitive sciences, such as conceptual metaphor theory and metaphoric blends, which supply tools to trace “the embodied origins of the human mind across cultures and across time” (Slingerland, 2008, p.218). Slingerland concludes his study with a defence of vertical integration, and a rebuttal of what he calls “the bogeyman of reductionism”. Slingerland argues that what *all* scholars do is reduce and that “any truly interesting explanation of a given phenomenon is interesting precisely *because* it involves reduction of some sort – tracing causation from higher to lower levels or uncovering hidden correlations” (Slingerland, 2008, p.258). The natural sciences have roughly arranged themselves in an explanatory hierarchy in which the lower levels provide a basis for the sort of explanations that can be built upon at the higher levels. A chemical experiment will go awry if it violates the laws of physics and by extension, a theory of psychology that cannot be reconciled with evolutionary biology has no sound basis. Slingerland contends that the humanities need to be vertically integrated with the lower levels of the “explanatory hierarchy” because:

the lower levels have finally advanced to a point that they have something interesting to say to the higher levels. Human level meaning emerges organically out of the workings of the physical world, and we are being “reductive” in a good way when we seek to understand how these lower-level processes allow the higher-level processes to take place. (Slingerland, 2008, p.261)

Professor Brian Boyd of The University of Auckland is a key figure among the Literary Darwinists. In Boyd’s opinion, an embodied, evolutionary view of human culture is nothing to be afraid of; indeed it is to be embraced.

An evolutionary view is revolutionary, in that it rejects the taken-for-granted, the apparently (locally) true assumptions about human nature; it adopts a larger,

more comprehensive vision; it makes possible genuine and valid interdisciplinarity, through a connected, coherent, cumulative, and relentlessly self-critical body of knowledge, and not the kind of interdisciplinarity that is just a dilettantish smorgasbord (a dash of chaos theory or quantum physics here or Lacanian pseudo-psychology there); and it historicizes, it provides a *genuine* historical vision, that takes into account both immediate and long-term causal factors. A bio-cultural view offers a richer model of human nature, tested *cross-culturally* from hunter-gatherers to modern industrialized societies; tested *comparatively, across species*, within and beyond the primate and the mammalian lines; tested in *real historical depth*, rather than shallowly, over the millions of years that shaped the human mind and that account for the similarities between people of very different cultures; and tested in the *neurophysiological* terms that are now becoming available through brain imaging technology. (Boyd, 2005, p.3)

This extract indicates the ambitious scope for future study that the Literary Darwinists propose. If feasible, it certainly seems to rebut the charge of reductionism. Brian Boyd is especially concerned with the evolutionary status and function of art and literature. His recent lecture, “The Storytelling Ape”, asked probing questions about the function of narrative in human development and about how and why art and storytelling have survived natural selection (Boyd, 2008). In 2009 he will publish a new book entitled *On the Origin of Stories* which deals with the topic in depth.³ “The Literary Darwinists”, an article printed in The New York Times Magazine in 2005, summarises some of the possible explanations for the evolution and survival of literature:

what can the purpose of literature be, assuming it is not just a harmless oddity? At first glance, reading is a waste of time [...] We would be better off spending the time mating or farming [...] One idea is that literature is a defence reaction to the expansion of our mental life that took place as we began to acquire the basics of higher intelligence around 40,000 years ago. At that time, the world suddenly appeared to Homo sapiens in all its frightening complexity. But by taking

³ *On the Origin of Stories* has now been published, unfortunately too recently for it to be incorporated into this thesis in time for its submission. *The Art Instinct: Beauty, Pleasure and Human Evolution* by Denis Dutton is another very recent publication which, despite its relevance to this study, has been regretfully omitted due to time constraints.

imaginative but orderly voyages within our minds, we gained the confidence to interpret this new, vastly denser reality. Another theory is that reading literature is a form of fitness training, an exercise in “what if” thinking [...] A third theory sees writing as a sex-display trait. Certainly writers often seem to be preening when they write, with an eye toward attracting a desirable mate [...] Yet another theory is that the main function of literature is to integrate us all into one culture; evolutionary psychologists believe shared imaginings or myths produce social cohesion, which in turn confers a survival advantage. (Max, 2005)

Boyd’s position is that art and literature are adaptive functions – tools that promote social cohesion through shared attention. In his contribution to *The Literary Animal* (2005) he develops this argument and takes to task some of the other evolutionary explanations of literature, including the sexual display theory and cognitive psychologist Stephen Pinker’s position. Pinker’s view is that literature might have an adaptive function, but it may be a “spandrel” – that is, an evolutionary by-product of other adaptive functions – and not in fact an adaptation at all. If it is adaptive, Pinker favours the “what if” mental fitness training theory – that fiction serves as a kind of thought experiment, helping to calculate the possible outcomes of various scenarios. The differences between Boyd and Pinker are developed in Pinker’s lengthy review of *The Literary Animal* (Pinker, 2007, pp.169-174). Pinker is unconvinced that shared attention is adaptive or that it necessarily leads to social cohesion. However, his own position seems somewhat modified from his earlier view, which argued more forcefully for the arts as evolutionary by-product theory (Pinker, 1997). Pinker is leaving his options open, which seems wise as it is apparent that there is a great deal of work yet to be done in this area. It could be that a combination of adaptive functions and a cocktail of by-products, or spandrels, have evolved into various manifestations of the arts. He also reminds the Literary Darwinists of the importance of looking outside of evolutionary psychology to other relevant scientific fields, suggesting:

artificial intelligence on the nature of intelligent systems, cognitive science on visual imagery and theory of mind, linguistics on the use of language to narrate plots and control readers’ attention, behavioural genetics on the development of personality and its dimensions of variation, social psychology on the biases that

govern our behavior in groups and our limited awareness of them. (Pinker, 2007, p.175)

Both Literary Darwinism and its philosophical parent, the much larger and more established field of evolutionary psychology, are growing and evolving fast, but they are fledgling disciplines. Controversies over their foundations, methodologies and applications are rife. Arguments rage over if, why and how evolutionary psychology can explain the existence and function of the arts and furnish an effective tool for textual analysis. Such arguments illuminate its great potential but also suggest certain dangers. There are multiple evolutionary models of culture competing for favour and it seems to me that keeping an open mind is absolutely essential at this early stage of the game. The last thing we should wish is for the humanities to open up to the biological sciences, only to instantly close ranks into factions bent on defending a single position.

Overall, the profusion of recent literature on the subject indicates that the gaps between the biological and cognitive sciences and the humanities are beginning to be bridged and that this rapprochement will facilitate further discussion of what the natural sciences can reveal about human culture and contribute to its study in the future, and vice versa. Thus far I have been trying, in necessarily broad strokes, to sketch a rough outline of a very wide, extremely complex and shifting cultural context. The next chapter will narrow its focus to outline the current climate within the field of adaptation studies. It will discuss the adaptation theorists I have found most insightful, and indicate further why I have attempted to draw such a broad frame around the subject.

Chapter Three:

Shifting the Paradigm in Adaptation Studies.

Both evolutionary theory and the rapid evolution of communication technology are changing the cultural landscape and impacting on how we read cultural texts. The paradigm shift that science has undergone since Darwin is still manifesting in the popular consciousness and in many academic disciplines. However, if thinkers such as Dennett, Pinker, Gottschall, Slingerland and Boyd are correct, a more holistic, integrated, interdisciplinary approach to academic study is starting to unfold and the humanities and sciences are approaching a time of greater mutual consistency. Darwinian evolutionary theory is being applied to the study of culture by a growing number of people in ever widening contexts. While god is certainly *not* dead for the majority of humans today and neither is the author, both religion and authorship have been rigorously deconstructed and re-examined over the past century and a half. The analogy – alluded to in Barthes’ echoing of Nietzsche – between the concept of god and that of the author will be explored further in this chapter. In it, I direct my enquiry into the field of adaptation studies and ask how a Darwinian perspective might help to free this area of cultural study from the theoretical doldrums in which, according to many of its key exponents, it has been languishing.

Meanwhile, the technological revolution of the latter half of the twentieth century continues unabated. New modes of communication are constantly springing up: from email, instant messaging, blogging, social networking and text/image messaging; to internet file sharing and downloading capacities; to digital imaging, home editing and printing facilities; to MP3 and Bluetooth technology; to digital and satellite television, interactive gaming technology and sophisticated home entertainment technology. Just as paperback books revolutionised reading, home movie viewing has changed the reception of films. No longer restricted to single viewings at the cinema, films can now be viewed multiple times and in different versions within a private environment. Interactive gaming and virtual reality promise to further alter how humans interface with narratives. All these factors are changing the nature of communication, combining word and image and sound in different permutations, and also transforming how (and

how often) audiences receive, respond to, share, replicate and transmit various texts (and parts of texts). Access to texts and modes of reception have expanded and altered and inter-textual connections can be traced, and responses to texts published, via the internet.

We now live in a media-saturated environment dense with cross-references and filled with borrowings from movies, books, and every other form of representation. Books can become movies, but movies themselves can also become novels, published screenplays, Broadway musicals, television shows, remakes, and so on. (Naremore, 2000, pp.12-13)

The systems and processes of cultural consumption and textual relationships in such a rapidly changing media environment are far more complex than a production line, linear and easily traced from (active) producer to (passive) consumer. As Linda Hutcheon contends, the process of an adaptation may be changed by:

the demands of form, the individual adapter, the particular audience, and now the contexts of reception and creation. This context is vast and variegated [...] the materiality involved in the adaptation's medium and mode of engagement – the kind of print in a book, the size of the television screen, the particular platform upon which a game is played – is part of the context of reception and often of creation as well. (Hutcheon, 2006, pp.142-143)

Within this rapidly changing landscape adaptation studies seems interestingly situated. Adaptation involves human communication being transformed via different media and in different cultural environments. Furthermore, it is an extremely mutable mode of cultural expression, making it a potentially richer seam of material to be mined from an evolutionary perspective than literature alone. Mireia Aragay and Gemma Lopez have called adaptation “a prime instance of cultural recycling, a process which radically undermines any linear, diachronic understanding of cultural history” (Aragay & Lopez, as cited in Leitch, 2008, p.68). This resonates, for me, with Kuhn's undermining of a linear understanding of the history of science. If adaptation does radically undermine perceptions of how culture evolves, then adaptation studies can and should emerge from the subsidiary, subordinate role it has played in the humanities and play a much more active and energising part.

In “Adaptation Studies at a Crossroads” Thomas Leitch declares: “After years of being stuck in the backwaters of the academy, adaptation studies is on the move” (Leitch, 2008, p.63). Leitch articulates the frustration felt by many adaptation theorists at having been long trapped within the confines of academic literature departments, hovering in a no-man’s-land somewhere in between literary and film studies. He also indicates that the time is ripe for resurgence, even rebellion, in adaptation studies. Robert Stam has been on the front lines of this, publishing several collections of work on adaptation in the past five years which call for a forward looking move away from literature-oriented, fidelity discourse and towards a more egalitarian, intertextual approach. Leitch reports that Stam’s recent body of work has elicited an energetic response from writers on adaptation but comments on how some of them seem unwilling or unable to take up his challenge, falling back again on the staple, comparative studies of literature (source) and film (adaptation) that have traditionally dominated.

[...] academic studies of adaptation remain stubbornly attached to literature as cinema’s natural progenitor. It is as if adaptation studies, by borrowing the cultural cachet of literature, sought to claim its institutional respectability and gravitas even while ensuring adaptation’s enduring aesthetic and methodological subordination to literature proper. (Leitch, 2008, p.64)

Leitch also claims that the field remains very much concerned with notions of fidelity, no matter how much lip service is paid to forging ahead towards a truly intertextual approach. “Ever since its inception half a century ago, adaptation studies has been haunted by concepts and premises it has repudiated in principle but continued to rely on in practice” (Leitch, 2008, p.63). Most of the reading within the field of adaptation studies that I have done in preparation for writing this thesis inclines me to agree with Leitch’s observations.

In Leitch’s view, theorists of adaptation seem doomed “to wrestle with the un-dead spirits that continue to haunt it however often they are repudiated” (Leitch, 2008, p.65). Leitch defines these un-dead spirits as: “the defining context of literature, the will to taxonomize and the quest for ostensibly analytical methods and categories that will justify individual evaluations” (Leitch, 2008, p.65). Leitch is hoping that these stubborn spirits will be dispatched by an as yet absent “silver bullet that will free adaptation studies from the dead hand of literature, taxonomies and evaluation” (Leitch, 2008,

p.65). The questions this raises for me are: why is the field of adaptation studies carrying such a heavy and persistent albatross around its neck? And whence might that silver bullet come? As regards the former, there are probably many contributory factors to this, including the situation of adaptation studies within the academy as a subordinate companion to both literary and film studies; the compartmentalisation of disciplines, making a truly intertextual approach problematic; and a general lack of direction in the humanities in the post post-modern theoretical doldrums.

As for the latter, one specific problem that Leitch indicates might lead in the direction of the silver bullet he speaks of. He mentions the frustrating “contradictions between the desire to break new ground and the constraints of a vocabulary that severely limits the scope and originality of new contributions” (Leitch, 2008, p.65). This issue, of the vocabulary used in adaptation studies, is perhaps the one that most urgently needs to be addressed if attempts to move ahead are not to prove futile. Therefore, we need to consider the vocabulary used in adaptation studies; how and why it is limiting its scope; and speculate about how that vocabulary might be reformed.

It may be pertinent, at this point, to consider the pervasive influence of Arnoldian ideology on academic cultural study. Matthew Arnold’s seminal work *Culture and Anarchy* (1869) was published 10 years after *On the Origin of Species* (1859). Four years later came *Literature and Dogma* (1873). Matthew Arnold posited a kind of quasi-religious, moral aestheticism, urging the pursuit of “high” truth and seriousness in poetry and life. James Naremore, the adaptation theorist, believes that the binary oppositions traditionally used in adaptation studies – “literature versus cinema, high culture versus mass culture, original versus copy” – are “the products of the average English department, which is composed of a mixture of Kantian aesthetics and Arnoldian ideas about society.” Naremore clarifies as follows:

When I use the term *Arnoldian* I am chiefly referring to Matthew Arnold’s *Culture and Anarchy* (1869), which argues that culture is synonymous with great works of art and that the inherited cultural tradition of the Judeo-Christian world, embodied in “the best that has been thought and said”, can have a civilising influence, transcending class tensions and leading to a more humane society. The study of English literature in American universities owes its very existence to this argument, which was more subtly elaborated by such later

figures as TS Eliot and FR Leavis; as a result, English professors have traditionally been suspicious of mass-produced narratives from Hollywood, which seem to threaten or debase the values of both “organic” popular culture and high literary culture. (Naremore, 2000, p.2)

The trickle-down effect into the public consciousness of an Arnoldian view of culture is unquantifiable but one has only to read the (university educated) broadsheet newspaper critics of today to recognise the kind of attitudes that Naremore describes in their critiques of film adaptations. Criticism and debate about adaptations on the internet and in the popular press also tend to feature the binary oppositions Naremore mentions and to generally favour those adaptations that show reverence for their putative sources. There is a deeply conservative tendency overall.

I use the term *Arnoldian* loosely, as Naremore does, to summarise a cluster of preconceptions that form a recognizable attitude towards culture. Thomas Leitch picks up on Naremore’s references to Arnoldian ideology in *Film Adaptation and its Discontents*, arguing that in Arnold’s *The Study of Poetry* (1880) “the program of comparative evaluation at the heart of Arnold’s own aesthetics emerges even more clearly” (than in *Culture and Anarchy*) and that Arnold offered poetry “as a substitute for a religious tradition undermined by such heterodox facts as the discovery of ancient fossils and the theory of evolution” (Leitch, 2007, p.4).

Arnold’s view of religion and God was complex, but he appeared to favour a pragmatic approach that focused more on the ideals, values and poetry of religion and its importance in society, rather than on the existence or non-existence of God. Indeed, Arnold even deemed god a “literary term”:

The word “God” is used in most cases as by no means a term of science or exact knowledge, but a term of poetry and eloquence, a term thrown out, so to speak, as a not fully grasped object of the speaker’s consciousness – a literary term, in short; and mankind mean different things by it as their consciousness differs. (Arnold, 1873, p.37)

Arnold’s liberal expansion of the definition of God widened his appeal from left to right, offering a wide middle ground which did not alienate the faithful but could

include those who had a more flexible, even metaphorical view of religion. Arnoldian ideology maintained a dualist, non-materialist, Mind First view of humanity and culture whilst shifting the onus from God to Art. It offered a timely modification of the old paradigm. The Arnoldian *raison d'être* for literature, poetry and art is teleological; they are assigned a goal or purpose – to elevate humanity from the basely material, lifting us out of the gutter with one of Dennett's skyhooks. But an Arnoldian view of culture cannot explain how these edifying structures (or the great minds that created them) came to be. This kind of elevated, ennobled and disembodied view of high culture, great literature and art is the edifice that adapters of texts of high cultural value have to scale.

It may appear to be going too far to suggest a correlation between religious faith being under siege and the common reaction of outrage in response to revered literary texts being adapted into new forms, especially films (the outrage deepening the further the adaptation departs from its source text). Nonetheless, I will develop an argument that there is a relationship between the two that is more than analogous. The dominant, culturally prescribed attitude that deifies "original" texts and denigrates adapted ones may, in part, be fuelled by a collective insecurity, or a form of nostalgia for the strong authorial voices and predominantly omniscient narrators of the pre-Darwinian era. Within a mindset not adapted to the Darwinian revolution, adaptations are somehow sacrilegious.

This parallel between religious and literary conservatism has been alluded to by a few adaptation theorists recently. In *Introduction: The Theory and Practice of Adaptation* Robert Stam states that "Film and other visual media seem to threaten the collapse of the symbolic order, the erosion of the powers of the literary fathers, patriarchal narrators, and consecrated arts" (Stam, 2005, p.5). Traditional literary order is allied with the dominant social order, with religious doctrine at its base. Julie Sanders devotes a chapter of *Adaptation and Appropriation* (2006) to a discussion of how the Victorian novel has been rewritten in the twentieth century from a post-Darwin perspective. She cites John Fowles, in *The French Lieutenant's Woman* (his postmodern recreation of the Victorian novel which references *On the Origin of Species* extensively):

If I have pretended until now to know my characters' minds and innermost thoughts, it is because I am writing in (just as I have assumed some of the vocabulary and "voice" of) a convention universally accepted at the time of my

story: that the novelist stands next to God. (Fowles, as cited by Sanders, 2006, p.125)

The traditionally dominant, evaluative term in adaptation studies has been *fidelity*, which refers to faith and faithfulness and which posits any opposition, resistance or difference as *infidelity* (and, thereby, the perpetrators of such as *infidels*). Robert Stam comments upon the moralistic vernacular employed in much conventional adaptation criticism including “desecration” which “intimates religious sacrilege and blasphemy” (Stam, 2005, p.3). I have also heard or read both “blasphemous” and “sacrilegious” used as adjectives to describe adaptations, and not only in the overt context of religious objections to, for example, *The Passion* or *The Last Temptation of Christ*. Whether it be righteous indignation or humorous exaggeration, the association is still there. Stam lists eight factors that form “a constellation of substratal prejudices” about adaptations from literature to film. One of these is “iconophobia”:

This deeply rooted cultural prejudice against the visual arts is traceable not only to the Judaic-Muslim-Protestant prohibitions of “graven images”, but also to the Platonic and Neoplatonic depreciation of the world of phenomenal appearance. The *locus classicus* of this attitude is in the Second Commandment forbidding the making of idols [...] Within the Platonic view, meanwhile, the irresistible allure of the spectacle overwhelms reason. Plato's polemic against poetry thus gets subliminally enlisted in an attack on contemporary visual arts and the mass media, seen as corrupting the audience through dangerously delusional fictions. (Stam, 2005, p.5)

This distrust of the visual is even entrenched in the field of Film Studies, traditionally a subsidiary discipline in academic Literature departments. Undergraduate film studies students very quickly encounter references to the camera's “murderous gaze”, the “pornographic” image and “scopophilia”. Navigating a way through these controversial ideas and terminology is an early challenge faced by students who often come to the study of film as a companion to the study of literature, with its relatively reputable, canonical status. The prejudice against visual adaptations is embedded in terminology shared between religion and literature. The linguistic associations between religion and literature go back centuries. As the Bible states: “In the beginning was the Word, and the Word was with God, and the word was God.” While the words “creator” and

“author” bring to mind The Creator and The Authority, conversely “adaptation” brings to mind the biological process, Darwinism and the secular.

Stam next lists “logophilia”, which he describes as “the obverse form of iconophobia [...] the valorization of the verbal, typical of cultures rooted in the sacred word of the ‘religions of the book’”. Stam extends his definition of logophilia as “the nostalgic exultation of the written word as the privileged medium of communication” (Stam, 2005, p.6). Literacy no longer refers only to reading the written word; negotiating the modern world requires us to be computer literate, multi-media literate, communication technology literate. The “nostalgia” for the unsullied written word that Stam mentions may be partly due to sensory overload and exhaustion in the face of such a challenge to the human brain – to remain abreast of so many rapid technological developments. But there could be a deeper, root cause. In *Sacred Word, Profane Image: Theologies of Adaptation* (2004), Ella Shohat contextualises the inverse-twin concepts of logophilia and iconophobia, tracing the fear of idolatry and the canonizing of the verbal in the Judaic, Christian and Muslim traditions. Shohat notes that “the novel as medium retained an a priori affinity with the religion of the word and scripture” and she asks these vital questions:

Might the denigration of the cinema and adaptation be partially linked to the biblical phobia towards the apparatuses of visual representation? Could some of the hostility to filmic adaptations of novels, one wonders, be traceable in some subliminal and mediated way to this biblical injunction against the fetish of the image, the cult of star worship, and the fabrication of false gods? In what ways has faith in the sacred word provoked contemporary iconoclastic anxiety, perceiving adaptation as an inherently idolatrous betrayal? (Shohat, 2004, p.24)

There are two further items on Stam’s list of sources of hostility to adaptation which I need to mention here. Stating “and here we move in more speculative directions,” Stam names “anti-corporeality, a distaste for the unseemly ‘embodiedness’ of the filmic text”: “Film offends through its inescapable materiality, its incarnated, fleshly, enacted characters, its real locales and palpable props, its carnality and visceral shocks to the nervous system”. He cites Virginia Woolf who famously described film spectators as “savages” who “lick up the screen” (Stam, 2005, p.6). This comes under the umbrella of what Daniel Dennett terms a Mind First attitude; the metaphysical, dualist separation of

mind and body that is at the root of the divide between the religious and the secular and also, more indirectly, between the humanities and the sciences. The study of film is rather problematically situated within the field of humanities, being material – dependent on technology and science – and commercial to boot. This brings me to the next item on Stam’s list: “a subliminal form of class prejudice, a socialized form of guilt by association”. The cinema, perhaps unconsciously, is seen as degraded by the company it keeps – the great unwashed popular mass audience, with its lower class origins in ‘vulgar’ spectacles like sideshows and carnivals” (Stam, 2005, p.7). Class-based cultural snobbery assumes ownership of literature by the middle – upper classes and consumption (not ownership) of cinema by the middle – lower classes. The perception of the vulgar spectacle of “low” culture versus the disembodied intellectual pursuits of “high” culture can also be read as an aspect of dualism. This is a dynamic explored in the film *Adaptation*, as I will discuss in Chapter Six.

I find anti-corporeality, iconophobia and logophilia valid and useful terms when considering entrenched attitudes towards adaptation. These quasi-religious prejudices could, conversely, offer a new direction for adaptation studies. Ella Shohat’s aforementioned questions point to what I see as the crux of the matter. I have little doubt myself that a great deal of the distrust and denigration of visual media is rooted in a way of thinking profoundly influenced by religions of the book. I conceive of religion (and its attendant terminology) as forming a *disciplinary matrix*, to borrow a term from Kuhn. The majority of humans have long viewed themselves and their culture predominantly from within its paradigmatic parameters. Some of the vocabulary that is holding back adaptation studies is heavily weighted with religious connotations. What seems to me a logical alternative is a vocabulary adjusted to an evolutionary paradigm. The question I want to raise next is how adaptation studies can expand its vocabulary. Could it benefit from adopting referents from the sciences that are relevant, and better adapted, to the Darwinian Revolution we are experiencing in wider, Western culture?

One of the most fundamental attitudes that needs identification and naming is that which understands an adaptation as means to an end – that of serving the purposes of the author of the “original” text. The adaptation is thus not a creative, but a re-creative process with a set end or goal to serve; the finished, a priori text. The adapter/s is/are, by virtue of this outlook, located in a cul-de-sac. This seems to me an essentially

teleological mode of thinking. This is the kind of attitude described by Thomas Leitch in his analysis of a wide range of critical responses to the 2004 film adaptation of *Vanity Fair*. As previously mentioned in Chapter One, Leitch remarks that the many different critics were all united in one respect: “their uncritical adoption of the author’s intention as a criterion for the success of both the novel and any possible film adaptation” (Leitch, 2007, p.2). When Linda Hutcheon notes that “the morally loaded discourse of fidelity is based on the implied assumption that adapters aim simply to reproduce the adapted text” (Hutcheon, 2006, p.7) she is also identifying a teleological attitude. Darwinian thinking, as I have previously discussed, offers an alternative.

A non-teleological mode of thought starts with the simple and studies the incremental journey towards the complex. The process does not have an overseeing designer directing it, nor does it have a set purpose, or ending, “in mind”. A less teleological mode of perceiving the adaptation process could provide a useful corrective to the tyranny of fidelity discourse. The overbearing, controlling centrality of authorship/ownership implicit in fidelity discourse could be challenged by a study of adaptation that focused more on the fundamental units of currency in adaptation – *ideas* – and on *how* ideas move, grow, mutate, combine and recombine across different media and cultural and temporal frames of reference.

The narratological approach to adaptation focuses on the stories that are transferred across media and the formal transformations, or translations, of them. If we understand stories to be complexes of ideas given a narrative trajectory, then narratology could come close to providing an ideas-focused methodological approach. As Robert Stam notes: “Narratologists see story as a kind of genetic material or DNA to be manifested in the body of specific texts; they speak of narrative kernels existing ‘below’ specific media” (Stam, 2005, p.10). The analogy of narrative kernels with DNA is extremely suggestive. While everyone’s DNA is unique in its particular combination, forming one’s particular blueprint, the genes that DNA contains are owned by no one, inherited via a multiplicity of hosts. The fundamental units or kernels of narrative are, by analogy, free agents; clusters of ideas without single authors. This comes within striking distance of what Richard Dawkins suggested when he proposed that there could be a unit of cultural inheritance similar to the biological unit – a *meme*; a replicator analogous with a gene (Dawkins, 1976, pp.189-2001). I will discuss meme theory in

detail in the following chapter. Narratology when employed by adaptation theorists is a comparative methodology, as it involves the examination of shared narrative across semiotically different texts. It is, as Stam puts it, “an indispensable tool for analyzing certain formal aspects of film adaptation” (Stam, 2005, p.41) and it is also a great leveller, lacking the hierarchical impulse of so much literary based adaptation criticism because of its egalitarian view of narrative. It asks lots of questions about *what* is adapted and *how*.

Stam warns against an overly formal approach, arguing for the necessity of constant contextualisation as well. However, it does not seem to me that an idea focused, as opposed to an author-focused, study of adaptations would necessarily tend to exclude the study of context. It is true that some formalist, narratological approaches to adaptation become rather restricted by their strong text focus. Brian McFarlane’s *Novel to Film* (1996) comes to mind here – although admirably thorough as an attempt to closely examine the adaptation processes of its particular focal texts, for me it lacked wider relevance. Nonetheless, this does not necessarily have to be the case. If a narratological approach (or something like it) to close textual analysis is combined with an awareness of the texts’ different modes of production and reception and the cultural/temporal frameworks that they are filtered through, then the discourse is freed from the dominating authorial locus/es of identification and ultimately enabled to move across ever-widening contexts.

Within an ideas-focused discourse, however, authors do not cease to exist or to be significant. As James Naremore has noted “the author does not become less real simply because she is socially constructed” (Naremore, 1999, p.22) and I would add that the author is not less real for being genetically constructed (a gene machine, even) either. However, rather than a godlike creator/owner of ideas, an author can be understood more as a filter for them, a frame of reference, or context. The author is not an a priori, absolute creator but part of an ongoing creative process. This view of the creative process is actually expansive, rather than reductive, in my view. If one limitation of narratology, as a tool in adaptation studies, is the habitual non-inclusion (rather than inevitable exclusion) of contextual discussion, perhaps another is the narratological unit of adaptation. Narrative kernels (or cardinal functions) are a useful unit of adaptation but these terms exclude non-narrative ideas and themes that can be and are adapted.

Adaptation studies, to cover its true scope, appears to require a telescopic vision; a range of focus varying from extreme close up to fish-eye wide angle, from microscopic to macroscopic. If a textual analyst like Brian McFarlane is at the extreme close up end of the telescope, then the theorist Linda Hutcheon is much further towards the wide-angle end. *A Theory of Adaptation* (2006) is organised as a series of questions about what adaptation is and how it happens rather than as a series of comparative textual analyses. The result is a broad theoretical discussion that encompasses a wide variety of media and varying modes of reception and engagement, although it would benefit from more rigorous application. Closer readings of a few of the many multi-media texts she references, or field research into the receptive/interactive experiences of readers, audiences, gamers and fan bases might inform and test the broad theoretical strokes she paints.

Nonetheless, Hutcheon's approach is very successful in terms of freeing the discourse from a literature-film narrow focus, providing a much wider frame for discussion. In the chapter entitled "Exactly What Gets Adapted? How?" Hutcheon answers the first question with the narratological answer - basically *story*, including theme and character. The *story* is transposed across different media and genres in formally different ways and different modes of engagement. The *fabula*, which she terms "the separate units of the story", can change dramatically when adapted in terms of plot ordering, pace and shifts in focalization (Hutcheon, 2006, pp.10-11). Adaptation is complex and problematic theoretically because it sits on the crux of the debate about form and content. Audiences and readers may experience a story as embodied in a particular form, but adapters (and theorists) can and must consider the elements of the story separately from form.

In law, ideas themselves cannot be copyrighted; only their expression can be defended in court. And herein lies the whole problem. As Kamilla Elliott has astutely noted, adaptation commits the heresy of showing that form (expression) can be separated from content (ideas) – something both mainstream aesthetic and semiotic theories have resisted or denied [...] even as legal theory has embraced it. (Hutcheon, 2006, pp.9-10)

Ideas, and the DNA-like narrative kernels, resist ownership. Only the shaping of ideas/content into an identifiable story-form, or *fabula*, can be "owned" and copyrighted. Adaptations prove that the embodiment of stories can be transformed and

re-embodied. Within such a mutable environment, authorial ownership is situated on quicksand rather than bedrock.

More application of non-teleological thinking could possibly break down other barriers to the evolution of adaptation studies. One ingrained, negative preconception is that the prior, antecedent text is authoritative and superior to the adapted text because of its precedence. Adaptation is secondary and therefore inferior. In the introduction to *A Theory of Adaptation* Linda Hutcheon agrees with Robert Stam that “all the various manifestations of theory over the last decades should logically have changed this negative view of adaptation”, yet it stubbornly persists. One lesson that we should have learned from intertextuality theory, deconstructionism, narratology and other theories of the past few decades “is that to be second is not to be secondary or inferior; likewise, to be first is not to be originary or authoritative. Yet [...] disparaging opinions on adaptation as a secondary mode – belated and therefore derivative – persist” (Hutcheon, 2006, p.xiii).

Darwinian, non-teleological thinking turns the notion that to be first is to be superior on its head. That is not to say that it assumes the reverse – that to be second is necessarily to be superior – because it is a non-evaluative mode of thinking. It observes the accumulation of design, or complexity, without assuming purpose and without judgement. While I am neither suggesting that we should never think teleologically, nor that we should never evaluate texts (or authors), it seems that a corrective to the dominance of fidelity discourse could be supplied by a non teleological approach. Studying the evolution of ideas via related texts over the course of time could reveal insights into how the processes, advantages and limitations of different media, modes of representation and modes of reception affect the outcome of idea and narrative trajectories. Freed of the weight of evaluative judgement and authorial ownership, the ideas themselves could come into the spotlight.

Robert Stam claims that we need “a new language and a new set of tropes for speaking about adaptation. If ‘fidelity’ is an inadequate trope, what tropes might be more appropriate?” He goes on to discuss several other terms such as the *Pygmalion* model; “where the adaptation brings the novel ‘to life’” and the *alchemical* model; “where the adaptation turns verbal dross into filmic gold” (Stam, 2005, p.24). Both these terms, while they cast a more positive light upon filmic adaptations than the fidelity trope,

seem little more than reversals of the black and white, negative – positive evaluative system the latter represents. Furthermore, I fail to see how they could be useful as a reading tool or way into a text. At least a fidelity trope might be used as a frame for comparative analysis, but I am unsure as to how one might go about analysing the “alchemical” or “Pygmalion” processes of adaptation.

Stam also mentions some of Kamilla Elliott’s taxonomic models. In her *Rethinking the Novel/Film Debate* (2003) Elliott terms these models as follows: *psychic*; *ventriloqual*; *genetic*; *de(re)composing*; *incarnational* and *trumping*. To my mind, the so-called *psychic* model, which supposedly involves the passing of the spirit of the text, is a redundancy that could only promote further invocations of the pure spirit of the “original” and (in)fidelity to it, whatever rarefied, ghostly thing “it” may be. The *genetic* model is actually useful in that it encourages dissection of what the DNA of a text might consist of without the disembodiment implications of *psychic*. Such a narratological process has real application, as I have previously argued. The *ventriloqual* model could be used to discuss those adaptations that depart from prior texts by giving voice to previously mute or marginal characters; but *trumping* is only of use if one is interested in taking sides in the literature-film rivalry. While it is certainly interesting and worthwhile to study how and why certain ideas may be communicated differently, and more or less effectively, via different media, to use such an antagonistic, competitive term seems problematic to me. Both the *de(re)composing* and *incarnational* models invoke the material embodiment of texts and imply regeneration and reinvigoration. As *de(re)composing* invokes death as well as rebirth and *incarnational* has strong Christian overtones (it is raised by Elliott in discussion of filmic incarnations of Christ and ‘the word made flesh’), I prefer the more neutral *(re)embodiment*. Overall, I part ways somewhat with Stam in thinking Elliott’s terms “very useful”; while they identify facets of adaptation discourse, they feel rather laboured – illustrative of what Leitch calls the “will to taxonomize” – and they do not seem especially forward looking.

While Stam (among others) believes we need new tropes and new language for adaptation studies, he maintains that adaptation studies has “a well-stocked archive of tropes and concepts to account for the mutation of forms across media”, many of which use the prefixes trans- (to denote changes wrought by the process) and re- (to denote its recombinant function). His assessment is that “each term, however problematic as a

definitive account of adaptation, sheds light on a different facet of adaptation” (Stam, 2005, p.25). I would agree that adaptation has a large vocabulary, in that it has terms from both literary and film studies at its disposal, many of which are excellent at clarifying the minutiae of textual details and processes. Whilst none of the terms are “definitive”, considering adaptation is a mutable process this seems appropriate – a too defining, static trope such as fidelity results only in stagnation. However, as the word “archive” implies, some of this terminology is outdated. Moreover, a large vocabulary is not exclusively positive; it can be unwieldy, confusing and encumbered. It is therefore necessary not only to expand but also to contract – to recognise and reject both static, older terms and tropes and those new ones that merely reconfigure or conjure up the old. The kind of vocabulary that is demonstrably useful (that which can be used to clarify the different kinds of movement, change, recombination and interaction wrought by the adaptation process) sits uncomfortably alongside the static, negatively evaluative vocabulary that has been identified by many theorists as holding back progress, yet nonetheless stubbornly persists. If I am on the right track in thinking that much of the latter kind of vocabulary is rooted in a fixed, entrenched but outdated ideological paradigm, then the obvious direction forward is towards a mutable, evolutionary paradigm.

Stam, and others, hover on the edges of this. At the start of his introduction to *Literature and Film* he discusses *Adaptation*, the 2002 film, as a text that calls into question the language used in discussion of filmic adaptations and suggests many other tropes or metaphors for the adaptation process:

novel and adaptation as twins [...] or adaptations as parasites, as hybrids [...] or as demonstrating the interdependence of species or genres. Most significantly, the film brings out the Darwinian overtones of the word “adaptation” itself; evoking adaptation as a means of evolution and survival [...] what could be more Darwinian than the dog-eat-dog ethos of Hollywood? The blockbuster aesthetic, in this sense, forms the end point of the commercial “survival of the fittest”. Yet if mutation is the means by which the evolutionary process advances, then we can also see filmic adaptations as “mutations” that help their source novel “survive”. Do not adaptations “adapt to” changing environments and changing tastes, as well as to a new medium, with its distinct industrial demands,

commercial pressures, censorship taboos, and aesthetic norms? And are adaptations not a hybrid form like the orchid, the meeting place of different “species”? (Stam, 2005, pp.2-3)

Adaptation is a text that raises all these issues and many more, offering a witty and incisive commentary on the perception and processes of writing an adaptation and, as I will later discuss in greater detail, on aspects of Darwinian thinking and paradigmatic conflicts. However, Stam’s assessment of “dog eat dog” Hollywood as the embodiment of Darwinism is a reductionism. Reading films from an evolutionary perspective need not imply that commercial blockbusters are the pinnacle of evolutionary adaptation (or the reverse). There are many other cultural environments for an adaptation to adapt to and flourish in than the blockbuster end of the cinematic marketplace. An organism, and by analogy a text, can adapt to less commercial, smaller and/or multiple bio-cultural niches/ecologies too and do very well in terms of survival prospects. While *Adaptation* does critique commercial Hollywood filmmaking, this is just the most obvious aspect of how it critiques and explores Darwinism on many levels, as I hope my reading of it will show.

The idea, or perhaps just its phrasing, that adaptations help their “source novel” to survive also needs to be addressed as it seems to magnetically return to a variation of the fidelity trope that is the North Pole of adaptation theory – that adaptations serve the purposes of their nominal “source” texts. Regardless of whether an adaptation seeks to render the “source” text as literally and faithfully as possible or whether, as in the case of *Adaptation*, it moves in radically different directions – it is not really the survival of the adapted text that is aided so much as that of those mutable elements that the texts share, the unit of currency that passes through them. While an adaptation may indeed instigate a renewed interest in, and increased readings of the adapted text (even first time readings of it when the adaptation has been experienced first) – it does not necessarily aid *its* actual survival any more than individuals aid their ancestors’ survival. Just as humans assist the survival of the *genes* that they share with their ancestors, related texts aid the survival of those elements that they share, rather than their previous formal embodiments.

That aside, Stam perceives in *Adaptation* the point that adaptations can be read as mutations, hybrid forms that are part of an evolutionary process, which is precisely what

struck me about the film and made it a central text in the process of writing this thesis. Stam's initial allusions to the potential of an evolutionary perspective, at the start of his informed, informative and well-argued introduction to *Film and Literature*, are not followed through however, when he speculates later about new language and tropes for adaptation. Yet evolutionary tropes could productively combine with all of the other positive, dynamic terms and tropes he mentions and help to eradicate the religious/moral overtones he critiques.

Another adaptation theorist who broaches the relationship between biological and textual adaptation is Julie Sanders. *Adaptation and Appropriation* (2006) offers a broad range of positive perspectives on adaptation and, like *A Theory of Adaptation* by Linda Hutcheon, asks many pertinent questions without seeking to promote a fixed taxonomy. Where Sanders differs most from Hutcheon is in her literary background and focus, which is evidenced in her inclusion of the kind of textual analyses omitted by Hutcheon. Yet despite her strong literary focus she alludes to a wide range of other media and disciplines and adopts an egalitarian, intertextual approach.

One of the main thrusts of her argument is in favour of non-linear readings of related texts, preferring a *palimpsestic* view of texts' layered relationships with each other. In the introduction, Sanders discusses the applicability of musicology to a discussion of adaptation and appropriation, adding that:

the scientific domain of genetics, stretching from the nineteenth century horticultural experiments of Gregor Mendel and Charles Darwin's controversial theory of natural selection and environmental adaptation through to the research into DNA in the twentieth century, provides a further set of productive correspondences. (Sanders, 2006, p.12)

Sanders deems Darwin's theory "controversial" more than once in the text without stipulating a context for controversy (does she mean the religious controversy?). Nonetheless, she returns to the biological/genetic analogy at several different stages throughout the book and includes the aforementioned chapter on twentieth century re-writing/re-visioning of the Victorian novel in the post-Darwin era.

With reference to the trope of *hybridization* in literary studies, Sanders is less than convincing, in my opinion. She asserts that:

Science-led notions of hybridization regard cultural artefacts as irrevocably changed by the process of interaction. In the case of post-colonial cultures this is particularly problematic, since if the scientific notion of dominant and recessive factors (or genes) holds true for cultures, then the colonial or imperial tradition dominates over the indigenous in any hybridized form. (Sanders, 2006, p.18)

This passage seems to me rather ill-conceived in several ways, the phrasing of “science-led notion” and “scientific notion”, with reference to hybridization and genetics respectively, being one. Although in a cultural context the application of either term could be described as a “notion”, neither established, scientific field could be described in this way. It is also questionable whether cultural artefacts are irrevocably changed by hybridization and whether this should be evaluated as problematic; in nature hybrid forms can coexist with parent forms. Hybridization connects and expands rather than contracts. I see no reason to assume a sinister political agenda on the part of those who create hybrid forms in a scientific or cultural context. The word “dominant” is especially loaded as Sanders uses it in its scientific, adjectival (genetic) sense and in its aggressively active verb form in the same sentence. The analogy of dominant and recessive genes with imperialist and indigenous is crude and I question the conclusion that the imperial/colonial would necessarily prevail in hybrid forms, if by this (as the context suggests) she is referring to adaptations.

The evidence seems to favour the opposite in fact; many texts from the traditional canon have been adapted or appropriated with a post-colonial political agenda with the result that the indigenous/suppressed culture is highlighted, given voice to and brought out of the shadows or margins of the canonical text. Examples include plural adaptations of *Robinson Crusoe*; the Patricia Rozema directed *Mansfield Park*; *Wide Sargasso Sea* (both the Jean Rhys novel and the filmed adaptation); and the most recent British TV serialization of *Jane Eyre*. While I take the issue of imperial cultures’ domination and suppression of indigenous cultures completely seriously, it seems to me that the use of scientific terminology in such a carelessly vague, metaphorical way serves only to muddy the waters here. It casts little light on either the adaptation process or its socio-

historic context because it has been offered without due consideration of its applicability.

In Part One of her study, “Defining Terms”, Sanders asks what adaptation and appropriation are. She draws no clear lines of demarcation between them, but sees them as variations on a spectrum, intersecting and interrelating at many points. Overall, she concludes that adaptations and appropriations are distinguished most clearly by how much they signal their relationship with their “source texts”. Examples she gives are Baz Luhrman’s *William Shakespeare’s Romeo + Juliet* (adaptation) and *West Side Story* (appropriation). While an adaptation may depart in many ways, such as generically, temporally and contextually, from its “source text” it still signals its relationship with it clearly. An appropriation, on the other hand, may depart radically into a completely different cultural domain from its informing text/s and resist overtly signalling or acknowledging it/them. In such a case, the text may be experienced with or without knowledge of its related text/s.

Sanders goes on to discuss how much the experience of an adaptation or appropriation is enhanced by or requires knowledge of its informing text/s. She argues that the pleasure principle involved in comparing and contrasting interrelated texts is undeniable and in the case of appropriation the very absence of acknowledgements to informing texts may be what enhances this pleasure. In both adaptation and appropriation, the reader/audience is an active part of the process, involved and interacting in the play between related texts. In the context of this discussion her distinction between adaptation and appropriation is very useful, particularly when she extends the debate into how *sustained appropriations* may raise objections of plagiarism. I fully endorse the re-visioning of readers and audiences in an active and fulfilling role, finding their pleasures enhanced by their involvement, interaction and engagement with multiple texts. Linda Hutcheon has a similar perspective on the highly active modes of reception of adaptations.

Sanders does not attempt to impose a rigid taxonomy on adaptation and appropriation, nor does she adopt an evaluative stance; in fact she argues throughout for an intertextual, non-linear, active and *kinetic* approach to the study of both. In the chapter “What is Adaptation?” she discusses adaptations of canonical texts that are themselves adapted from older texts, an example being *My Fair Lady* from *Pygmalion* from

Metamorphoses by Ovid. “What [...] begins to emerge is [a] more kinetic account of adaptation and appropriation. [...] These texts rework texts that often themselves reworked texts. The process of adaptation is constant and ongoing” (Sanders, 2006, p.24). She immediately goes on to mention biological and ecological adaptation and Darwin, giving two well known examples of adaptation in nature, the finches of the Galapagos and the peppered moth of Britain’s industrial cities. She concludes that:

Adaptation proves in these examples to be a far from neutral, indeed highly active, mode of being, far removed from the unimaginative act of imitation, copying, or repetition that it is sometimes presented as being by literature and film critics obsessed with claims to “originality”. *Adaptation and appropriation* [emphasis added] also provide their own intertexts, so that adaptations perform in dialogue with other adaptations as well as their informing source. Perhaps it serves us better to think in terms of complex processes of filtration, and in terms of intertextual webs or signifying fields, rather than simplistic one-way lines of influence from source to adaptation. (Sanders, 2006, p.24)

Here the scientific analogy serves Sanders better, reinforcing the kinetic, active and non-linear nature of the process that she argues for. I also find *filtration* a useful, neutral way of framing the authorial and socio-historic contexts of inter-related texts, as I have previously argued.

In the next chapter, “What is Appropriation?” Sanders refers to Richard Powers’ novel *The Goldbug Variations*, which appropriates Bach’s *Goldberg Variations*. It tells the true story of Crick and Watsons’ race to crack the genetic code for DNA and mimics the double helix structure of DNA in its intertwined narrative structure. She claims that:

his prose gives us [...] an invaluable set of terms for rethinking the process of *adaptation* [emphasis added], moving away from a static or purely linear standpoint. Unfoldings, recycling, mutations, repetitions, evolutions, variations: the possibilities are endless and exciting. (Sanders, 2006, p.40)

It is interesting that in each of these chapters defining adaptation and appropriation Sanders makes use of analogy with evolutionary science and that within these analogies (with Darwinian theory and with the structure of DNA) she mixes both of her principle

terms – adaptation and appropriation – freely together (see my italics). This seems to reinforce my contention that an evolutionary perspective combines well with dynamic, positive tropes and terms for adaptation and allows for fluid, open-ended definitions.

Both Julie Sanders and Linda Hutcheon also find a useful analogue in musicology, which provides terms such as variation, riffs, improvisation, jamming, remixing and sampling. Connecting this with the scientific analogy she has also found productive, Sanders returns to Richard Powers' *The Goldbug Variations* at the close of *Adaptation and Appropriation* in a chapter entitled "Appropriating the Arts and Sciences". The novel appropriates the variations on a ground of Bach's Goldberg Variations and Edgar Allen Poe's *The Gold-Bug* as well as evoking the double helix DNA form in its narration. Sanders' evaluation of its significance is worth quoting at length here:

The theory of DNA is all about correspondences and consonances, but perhaps even more importantly Powers finds correspondences between the patterns of variation in Bach's Goldberg Variations and the patterns of genetic adaptation that are in many respects the story told by the double helix. In Chapter 7 we argued for the Darwinian model of environmental adaptation as an important analogue to the literary practice of adaptation and in the double helix Powers finds a twentieth century equivalent. In the process, he argues for an enlarged understanding of a term like "translation", and by extension our understanding of adaptation and reworking: "The aim is not to extend the source but widen the target, to embrace more than was possible before...variation grows rich in a different tongue" [...] In Powers' account art, like science, for all its intertextuality, proves to be less about echoes, repetitions, or rephrasings [...] than about the identification of shared codes and possibilities. The discovery of these codes enables acts of endless (re)creativity in new contexts. (Sanders, 2006, p.154)

There are several significant connections made here. One is that between scientific and artistic models or patterns, moving towards the idea of shared, inherent codes and hinting at an *embodied* view of art and culture. While the connections are tenuous and untested, they signify a shifting attitude or perspective. The idea of shared, underlying codes in art and in nature is a significant shift from a hierarchical view that pits base nature against elevated art, towards a more grounded, scientific stance. Perhaps a more

decisive move away from a dualistic understanding of mind and body, and towards an embodied view of the evolution of culture, will help us to crack these codes and lead us towards an understanding of the *cranes* of culture (Dennett, 2000), its incremental building blocks. Powers also shifts focus from the authorial “source” perspective to the reception mode – the widened target – and to the creative contributions of multiple translators/authors – the different tongues enriching the variation. In summary, the shift is away from the originary, the linear, and the unique and towards the shared, the non-linear, and the multiple. A reduced appreciation of the creative process(es) involved is not implied by this, but rather the opposite.

Sanders concludes, in the afterword, that the modern synthesis of Mendelian inheritance and Darwinian variation that is at the heart of contemporary science has had genuine results and applications and that it offers a productive and positive model of thinking about adaptation and appropriation. She also contends that “a volume on the literary processes of adaptation and appropriation can only ever deploy such complex thinking at the level of metaphor and suggestion” (Sanders, 2006, p.156). While she is probably right at this point in time, I believe it is more than possible that such “complex thinking” can and will be deployed in the study of culture and that the time is approaching fast.

Linda Hutcheon, in *A Theory of Adaptation*, provides clear, simple definitions of what “adaptation” consists of. Hutcheon takes it “as no accident that we use the same word – adaptation – to refer to the process and the product”. Her three main distinctions, which interrelate, are between *a formal entity or product*; *a process of creation*; and *a process of reception* (Hutcheon, 2006, pp.7-8). This seems to me a clear, but not restrictive, summary. I also prefer *adapted text* – “the purely descriptive term” she favours over “source” or “original” – to either of those, for obvious reasons, and to “prior text” or “informing text” as those also have evaluative connotations (of priority and authority). Hutcheon notes that the term can also be used in the plural when an adaptation references more than one text, although she uses as example the film *Moulin Rouge*. It seems a bit of a stretch to use *adapted text* to describe all of the allusions and references in that film: to the paintings of Toulouse Lautrec; to various musicals; to a range of music and to several “dying courtesan” novels and films, such as *Camille*. I would favour *embedded text*, one of Sanders’ terms for appropriations, to describe some of the texts referred to.

Hutcheon also broaches the topic of adaptation's relationship to evolutionary theory, and although she does so only briefly, she is more incisive (than either Sanders or Stam) in her recognition of a real theoretical possibility, referring to a text that has been very central in my own train of thought in the lead up to writing this thesis: *The Selfish Gene* by Richard Dawkins, and its introduction of the *meme* to the collective thought pool. Hutcheon starts by making reference to Robert Stam's allusions to biological adaptation in his assessment of *Adaptation* (in his introduction to *Literature and Film*, quoted previously). Hutcheon writes:

For Stam, mutations – filmic adaptations – can help their “source” novel “survive”. Because my focus is on modes of engagement rather than on two specific media or on “sources”, different things have caught my attention. I was struck by the other obvious analogy to adaptation suggested in the film by Darwin's theory of evolution, where genetic adaptation is presented as the biological process by which something is fitted to a given environment. [...] Stories also evolve by adaptation and are not immutable over time. Sometimes, like biological adaptation, cultural adaptation involves migration to favourable conditions: stories travel to different cultures and different media. In short, stories adapt just as they are adapted. (Hutcheon, 2006, p.31)

What struck me, reading this a matter of months ago, was the coincidence of Stam, Sanders and Hutcheon, in different ways and to different degrees, invoking this apparently obvious (by virtue of its shared name) but unexplored analogy between biological and cultural adaptation within a short space of time. My own interest in this connection was sparked around the same time; I embarked upon this thesis in 2005, the idea for it having come to me the previous year, after seeing *Adaptation*. I was not yet aware of Robert Stam, who published his introduction to *Literature and Film* in 2005, or of Hutcheon's or Sanders' books (published in 2006). I point this out simply because it illustrates, to me, the fascinating way in which ideas oscillate, combine, and start to form clusters or complexes at certain points in time and in certain milieux, travelling across webs of texts and individuals in a manner more tangential than linear.

The central hub text here is *Adaptation*, which foregrounds a particular convergence of circulating ideas. My initial attraction to, and assessment of, the biological-cultural connection in adaptation was more akin to Hutcheon's than Stam's – as I have

previously argued, it is not the survival of the adapted text that is promoted by adaptation so much as that of much smaller units of information. If ideas and DNA-like narrative kernels resist ownership by single authors, then where do they come from and how do they spread? One of the neural connections I made, after seeing *Adaptation*, was between Darwinian evolutionary theory, which I had been slowly educating myself about for some time, and the evolution of ideas and stories. Perhaps answers to these questions might come from the direction of the cognitive and neuro-sciences or from evolutionary psychology. Once opened, this pathway also connected with my memory of having read *The Selfish Gene* many years previously and, particularly, with Dawkins' coining of the term "meme". Hutcheon makes the same connection. I will return to her brief assessment of a possible role for memes in adaptation studies in the following chapter, which will attempt to provide an overview of meme theory (or memetics) and discuss if and how it could be relevant to adaptation studies.

Chapter Four:

A Meme's Eye View?

Most of what is unusual about man can be summed up in one word: “culture”. I use the word not in its snobbish sense, but as a scientist uses it. Cultural transmission is analogous to genetic transmission in that, although basically conservative, it can give rise to a form of evolution. (Dawkins, 2006, p.189)⁴

A whole new branch of thought – memetics (largely spread via the internet where many sites devoted to the subject exist) – has sprung up around the term “meme”, coined by Richard Dawkins in 1976. Memetics, or meme theory, attempts to explain cultural transmission and evolution by positing a unit of cultural transmission – the meme – that adapts and survives via a Darwinian model of evolution. A meme’s eye view shifts the focus from the individual, or host, to the ideas, or memes, themselves as active units competing for survival in the meme-pool of human culture, surviving or becoming extinct according to their ability to replicate. Although memetics is an untested and inexact scientific theory unverifiable, to date, by empirical evidence, it is a fascinating attempt to apply Darwinian principles to the evolution of culture. Meme theory provides a Darwinian theory of culture that follows an alternative path, though not necessarily one in opposition, to the embodied theories of culture currently developing in evolutionary psychology and related disciplines. It might also, in my opinion, supply an additional, alternative theoretical approach to the textual analysis of cultural artefacts; such as songs, novels, computer games, films, plays and comic books.

Dawkins came up with the meme primarily because he wanted to make the point that genes are not necessarily the only replicators and therefore the only possible basis for evolution. He was also less than satisfied with the then current evolutionary explanations of culture and such apparent anomalies as altruism, birth control and celibacy. These apparent anomalies have always been a thorny issue with Darwinists, as the classical Darwinist position was that as *organisms* are in competition with each

⁴ *The Selfish Gene* was first published in 1976. The 1989 edition included detailed endnotes which enlarged and updated certain arguments and replied to some of his critics. My references are to the 30th Anniversary Edition.

other, forms of altruism could not possibly be naturally selected and neither could anything that prevented or limited the reproductive potential of an organism. However, neo-Darwinism – following on from the genetic revolution – broke down the fundamental building blocks of evolution still further, showing how reproduction works and how characteristics are passed on from generation to generation. From the classical Darwinist perspective, trying to understand the natural selection of characteristics involved asking how those characteristics benefited an *organism*. From this position, altruism and controlled reproduction make no sense and a case can be made for dualism and the maintaining of a few skyhooks.

From a neo-Darwinist perspective, however, the question changes to how the characteristics that are selected benefit the *genes* that built the organism in order to perpetuate copies of themselves. The shift from classical to neo Darwinism then, was in this sense a shift of focus from phenotype to genotype. This distinction is absolutely crucial. If the genes that build bodies – or survival machines – for themselves found that in certain conditions they would do better if their survival machines would cooperate with each other, then they could quite reasonably be expected to build bodies to do just that. This opens the door to a truly Darwinian account of altruistic and other anomalous behaviours. Dawkins made this argument in *The Selfish Gene* and a large body of work has been accruing before and since in this complex and compelling area. At the same time, Dawkins introduced the meme as a Darwinian account of how ideas might replicate and spread throughout cultures and how apparently anomalous ones might perpetuate themselves. As I discussed in chapter two, forms of culture such as the arts and literature are also something of an evolutionary puzzle and there are competing explanations of why they should be naturally selected and if they are adaptations at all or just by-products of selection (spandrels).

Returning to the vital question of whether cultural transmission can evolve: what are the necessary conditions, according to the theory of evolution by natural selection, for evolution to occur? Basically: variation, replication and differential fitness. In very simple terms, evolution will occur if elements exist that have the capacity to replicate themselves and if, by virtue of some small infidelities in the copying process, there is variation amongst the copies, which then interact with the different features of environment. One of the key points Dawkins was making when he posited the meme as

a replicator was that evolutionary theory need not apply exclusively to genes. Other types of replicator could initiate evolution. This is especially interesting, as applied to the cultural environment, when one considers the proliferation of replicating tools widely available today.

What is a meme then? It is a replicator, a unit of cultural transmission that can be copied.

Examples of memes are tunes, ideas, catchphrases, clothes fashions, ways of making pots or building arches. Just as genes propagate themselves in the gene pool by leaping from body to body via sperms or eggs, so memes propagate themselves in the meme pool by leaping from brain to brain via a process which, in the broad sense, can be called imitation. (Dawkins, 2006, p.192)

Daniel Dennett's definition adds that memes are, roughly, ideas but not "simple" ideas such as red or round, or hot or cold, but "the sort of complex ideas that form themselves into *distinct memorable units*" (Dennett, 1995, p.344).

So what would facilitate the survival of one meme as opposed to another – in other words what would make a meme more likely to be selected? The same factors that make a gene more likely to be selected, Dawkins argues, that is: longevity, fecundity and copying fidelity. The last factor might seem to support the argument in favour of fidelity in cultural adaptations. However, a text of any length and complexity is not, in my understanding of the term, a single meme but a collection of multiple memes within a particular form. Moreover, the *longevity* of any single copy of a meme is not as important, in terms of its chances of survival, as the *fecundity* of copies, according to Dawkins (Dawkins, 2006, pp.194-195). It should also be stressed that the errors that occasionally occur in the copying process are precisely what fuels evolution.

Dawkins also coined the term *meme-complexes* to describe clusters of memes that mutually assist each other's survival via their symbiosis. He gives the example of the "hell fire" meme which has become linked to the "god" meme because they reinforce and mutually assist each other. The "blind faith" meme also joins this religious meme-complex. Thus memes can combine with other memes in so far as they can coexist to the advantage of each. This is also true of genes (Dawkins, 2006, pp.197-198). Using

Darwin's theory of evolution by natural selection as an example of a meme, Dawkins further clarifies his definition thus:

when we say that all biologists nowadays believe in Darwin's theory, we do not mean that every biologist has, graven in his brain, an identical copy of the exact words of Charles Darwin himself. Each individual has his own way of interpreting Darwin's ideas [...]. Yet, in spite of all this, there is something, some essence of Darwinism, which is present in the head of every individual who understands the theory [...]. The meme of Darwin's theory is therefore that essential basis of the idea which is held in common by all brains that understand the theory. The *differences* in the ways that people represent the theory are then, by definition, not part of the meme. (Dawkins, 2006, pp.195-196)

This strikes me as especially pertinent when considering the separation of form and content that the adaptation process represents. The meme seems to me a potentially viable term for discussing *what*, essentially, is adapted.

Dawkins' "meme-meme" has proved very catchy indeed, spawning a wealth of literature and websites and suggesting that the time is ripe for new explanations of consciousness devoid of mystical connotations. It has also drawn fire from many who understand it as a theory that would rob us of all autonomy, making us passive victims of viruses, or parasites, of the mind. As if it weren't enough that our bodies should be conceived of as "gene machines", could our minds also be carriers, or vehicles for a different kind of replicator? As Daniel Dennett puts it:

It does seem to rob my mind of its importance as both author and critic. Who's in charge, according to this vision – we or our memes? There is no simple answer to that important question. There could not be. We would like to think of ourselves as godlike creators of ideas, manipulating and controlling them as our whim dictates, and judging them from an independent, Olympian standpoint. But even if this is our ideal, we know that it is seldom, if ever, the reality. (Dennett, 1995, p.346)

Dennett then gives the example of the annoying, catchy tune that no matter how much we may dislike it, just keeps on relentlessly replaying itself in our minds. We have all

had this experience and one of its most common features is that we find ourselves supplying our own words when we are unsure of the lyrics, mutating it into our own version which we often continue to favour even after we learn the correct lyrics. Some mutations seem favourable, or more *memorable*. Both Dawkins and Dennett provide simple, commonplace examples of slightly mutated memes hopping from vehicle to vehicle; Dawkins relates how the Robert Burns' penned *Auld Lang Syne* is commonly mis-sung on New Year's Eve around the world, with the incorrect addition of the words "for the sake of". He attributes this to how the mutated version is made more memorable (catchy) than Burns' by the sibilant "s" (Dawkins, 2006, p.324). I would add that also it scans better with the beat of the accompanying music. Some nameless person somewhere, perhaps drunkenly, sang "for the sssake of auld lang sssayne" and it caught on, spreading from person to person across time and space.

Another mutant meme almost universally shared is the "Alas poor Yorick, I knew him *well*" attributed to Hamlet. The mutated version is, possibly, more memorable because it sounds more complete, emotive and emphatic. Perhaps an early misquotation has been repeated so often that it now takes precedence, in many minds, over Shakespeare's written version. This is an example of how a meme can exist independently of a text – theatrical and filmic versions of Hamlet do not reproduce the misquotation, yet it persists extra-textually.

Daniel Dennett takes a small, personal example of his own – his mechanically minded grandson singing "Pop! goes the *diesel*" (along with the example of mutated, orally transmitted jokes) – and remarks:

this modest moment of creativity is a mixture of serendipity and appreciation, distributed over several minds, no one of which gets to claim the authorship of special creation [...]. The very creativity and activity of human minds as temporary homes for memes seems to guarantee that lines of descent are hopelessly muddled, and that phenotypes (the "body designs" of memes) change so fast that there's no keeping track of the 'natural kinds'. (Dennett, 1995, p.355)

There are two important points to clarify here. One is that fundamental to meme theory is the separation of information and vehicle, although a meme's survival is assisted by

how *memorable* the forms it takes are; another is that memes are inherited, mutate and evolve many quantities of magnitude faster than genetic evolution. Both factors make the tracing of individual memes and the establishment of meme theory as a science extremely difficult. As Dennett goes on to argue, this is an epistemological problem, but not a metaphysical one. As he explains it:

species are invisible without a modicum of stasis [...]. If species weren't rather static, we couldn't *find out* and organize the facts needed to do certain kinds of science; that wouldn't show, however, that the phenomenon weren't governed by natural selection. (Dennett, 1995, p.356)

This is where the humanities, or cultural studies, come in. While we must leave it to the scientists to try to discover the *genotype* of meme theory, if such a thing can be empirically found, our expertise in textual and cultural analysis lends us to the tracing of the *phenotypic* expression of memes. Regardless of whether the existence of memes can and will be confirmed by scientific methods, meme theory could still be tried by inter-textual analysis. The field of adaptation studies is particularly well situated to undertake such a project. Daniel Dennett's following observation almost suggests as much:

One of the most striking features of cultural evolution is the ease, reliability and confidence with which we *can* identify commonalities in spite of the vast differences in underlying media. What do *Romeo and Juliet* and (the film, let's say, of) *West Side Story* have in common (Dennett 1987b)? Not a string of English characters, not even a sequence of propositions (in English or French or German [...] translation). What is in common, of course, is not a *syntactic* property or system of properties but a *semantic* property or system of properties: the story, not the text; the characters and their personalities, not their names and speeches. (Dennett, 1995, p.356)

Dennett notes the separation of story/content from text/form, which is so essential to adaptation. This is the cultural parallel to the distinction between genotype and phenotypic expression, the phenotype being the bodily form that is created by the interaction between inherent genotype and environment. Are cultural texts the "phenotypic" expression of underlying "genotypes" (memes and meme-plexes) in an

ongoing accumulation of design complexity? It should not be left only to scientists to answer that question, surely?

In *The Extended Phenotype* Dawkins responded to the storm of controversy over what he called his “meme meme”, saying that its

main value may lie not so much in helping us to understand human culture as in sharpening our perception of genetic natural selection. This is the only reason I am presumptuous enough to discuss it, for I do not know enough about the existing literature on human culture to make an authoritative contribution to it. (Dawkins, 1982, p.112)

Dennett and others have read this as a retreat on Dawkins’ part, and there is reason for him to be cautious, as a scientist, of fully endorsing a theory that resists empirical falsification testing. However, as he has never been shy of controversy in his career, perhaps his partial retraction is also recognition of the fact that science has a limited understanding and grasp of the depth and complexity of cultural expression (just as the humanities have a limited grasp of science). The scientist interloping in the field of culture might feel equally embarrassed, deficient and apologetic as someone from a humanities background might feel when trying to move in the inverse direction (myself included). A cooperative, educational exchange between interested parties in the sciences and humanities might ease some of this trepidation and answer some of the interesting questions that memetics raises, whilst uncovering further correlations and connections.

Asking why the meme has not been taken more seriously and discussed more widely, Daniel Dennett, reflecting upon the aforementioned passage and Dawkins’ supposed retreat, asserts that:

the meme’s eye view of what happened to the meme meme is quite obvious: “humanist” minds have set up a particularly aggressive set of filters against memes coming from “sociobiology”, and once Dawkins was identified as a sociobiologist, this almost guaranteed rejection of whatever this interloper had to say about culture – not for good reasons, but just in a sort of immunological rejection. One can see why. The meme’s eye perspective challenges one of the

central axioms of the humanities. Dawkins points out that in our explanations we tend to overlook the fundamental fact that “a cultural trait may have evolved in the way it has simply because it is *advantageous to itself*”. This is a new way of thinking about ideas [...]. (Dennett, 1995, pp.361-362)

We need to tread a little carefully here, as this kind of personification of memes – like Dawkins’ famous depiction of genes as “selfish” – might be a good way of explaining them, but not a good way of promoting them for serious consideration and wider acceptance. When *The Selfish Gene* popularised the gene’s eye view (and introduced the meme), Richard Dawkins drew attention to the fact that by terming genes “selfish”, he was applying an intentional, teleological abbreviation to what was a non-teleological, algorithmic process. The effect is very useful; it is a language easily understood by the layperson and it is much more succinct than using the more accurate, but unwieldy non-teleological longhand.⁵ It is also very memorable.

However, the danger is that genes (and memes) become misunderstood, even demonised, by those who lack the scientific understanding to discern how much of a metaphorical shortcut is being taken. Of course neither genes nor memes have human-like selfish intentions or desires; they are both merely replicators which, when interacting with a particular environment, may prove to have a feature or features that confer a survival advantage, making them more likely to be selected. Whilst writers such as Dawkins and Dennett are eminently readable and have done a great deal to popularise and spread evolutionary science, their very success in being readable is, perhaps, a double-edged sword. Once a memorable meme like “the selfish gene” is released into the meme pool, it takes on a life of its own; many more people than have read Dawkins’ book are aware of the term and may interpret it independently of that context. Dawkins, rather ironically, has experienced the frustration of the misunderstood, “taken out of context” author more often than most – turned on by his memorable, mutated memes. The antipathy claimed by Dennett to exist towards a sociobiologist such as Dawkins may be exacerbated by the powerful, memorable and simplified language he has employed to popularise his views so effectively.

⁵ For further explanation of this with examples see Radcliffe Richards, 2000, pp.165-166.

Incidentally, while I accept the intellectual “set of filters” that Dennett speaks of, having prevented ideas from sociobiology entering the humanities; I object to him not clearly and directly naming which “central axiom of the humanities” he sees as challenged by a meme’s eye view. It seems that he is referring to whatever attitude is threatened by the idea that a cultural trait may evolve in a certain way simply because that way confers a survival advantage on itself. This certainly undermines traditional notions of authorship and dualistic, Mind First attitudes, but Dennett’s exact meaning is unclear.

Perhaps this “central axiom” of the humanities is a cherished ideal of culture as an expression of what is best in humans, what is most ingenious and creative. This might be seen to be overturned by “selfish” memes replicating themselves by parasitically infecting as many minds as possible, in a blind quest for survival. Although this reaction to memetics is common (as was a similar response to selfish genes), it is rather tinged with hysteria. It implies a certain (negative) intentionality on the part of the meme which is misleading. I feel that, in fact, adopting a meme’s eye view might help us to discern between good ideas and bad ones; to analyse and question the ideas and beliefs that are colonising our individual and collective consciousness; to understand how certain ideas are being perpetuated and how certain clusters or complexes of ideas can be broken down. None of this requires any lessening of our appreciation for the myriad, creative ways in which ideas, or by extension stories, are expressed in a bodily (phenotypic) form. To return to Dawkins’ example, quoted earlier in the chapter, of Darwin’s theory as a meme: “The *differences* in the ways that people represent the theory are [...] not part of the meme” (Dawkins, 2006, p.196). Any writer, artist, filmmaker, adapter – or anyone involved in a creative endeavour – who is infected by a particular meme or complex of memes does not become some kind of brainwashed zombie without any choice or control over if and how they perpetuate it. If we replace the classic model of “divine” artistic inspiration with a meme evolved within human culture, does this rob the inspired/infected individual of autonomy to a greater degree? I fail to see how. It seems to me that the meme has had a rather sensationalist and very superficial trial by media. The knee jerk reaction is to fling the charge of reductionism at it, especially considering the meme was named by the infamous “bad-boy reductionist” (Slingerland, 2008, p.267) himself – Dawkins. As mentioned in chapter two, Janet Radcliffe Richards has excellent advice for anyone who wishes to rebut the charge of reductionism: “get the accuser to clarify exactly what the accusation is

supposed to be or, failing that, [...] suggest various possibilities and consider them” (Radcliffe Richards, 2000, p.179). With that in mind, we should look at some of the objections to meme theory in a little more detail.

To start with, we can fairly safely assume that one of the primary, general objections to the meme is the challenge to autonomy that it seems to present. This is a philosophical, rather than a theoretical, objection (in essence a question of free will versus determinism) directly descended from the powerful response to the selfish gene/gene machine scenario – a kind of *Invasion of the Body Snatchers* recoiling. Thus it seems fitting to turn to Dawkins to reply.

We have the power to defy the selfish genes of our birth and, if necessary, the selfish memes of our indoctrination. [...] We are built as gene machines and cultured as meme machines, but we have the power to turn against our creators. (Dawkins, 2006, pp.200-201)

Dawkins actually wrote this in 1976 in the same chapter that introduced the meme-meme, but apparently, as Dennett noted later, many of his critics either didn’t read or understand it (Dennett, 1995, p.366). Just as Dawkins has always argued that genetic determinants are not ineluctable,⁶ he has also never claimed that we can have no control over the memes that populate our minds. In his own defence of the meme, Dennett asserts that “autonomy” is “just a fancy term for ‘self-control’” (Dennett, 1995, p.366).

While Dennett and the British psychologist Susan Blackmore (from whose 1999 book *The Meme Machine* I have taken the title of this chapter) are enthusiastic supporters of the meme, objections of varying strength have come from such diverse heavyweights as Stephen Pinker, John Maynard Smith and Stephen Jay Gould. Some of these objections seem rather pointedly aimed at Dawkins rather than at the fledgling theory itself, such as his old adversary Gould’s dismissal of memes as “a meaningless metaphor” (Gould, as cited in Brown, 1997). Gould’s resistance to neo-Darwinian theories of culture and his antipathy towards Dawkins are well documented, and the former was briefly mentioned in chapter two.

⁶ See *The Extended Phenotype* (1982) pp.9-13 for his rebuttal of charges against him of genetic determinism.

One theoretical objection to memetics is that cultural evolution is generally supposed to be Lamarckian, rather than Darwinian – which is to say that culture, unlike biology, evolves at the phenotypic level, not the genetic. Lamarck, a discredited early proponent of evolution pre-dating Darwin, believed that acquired characteristics (inherited during an organism's lifetime and therefore impacting on the phenotype, not the genotype) could be inherited. It is now a fixed biological law that this is not so.

John Maynard Smith sides with Dawkins against Stephen Jay Gould in battles over biological evolution, but has nonetheless expressed very clearly one of the main theoretical objections to memes: “Two features are necessary for any genetic system that is to support adaptive evolution. The system should be digital, and it should not support ‘the inheritance of adapted characters’”. (Brown, 1997)

My response to this is that there is not nearly as clear a distinction between a meme and its formal expression as there is between genotype and phenotype. What is modified, before being passed on, may not be the essential meme or group of memes but only the cultural/phenotypic expression of it. The meme or meme-plex itself may be passed on, unchanged in essence but obscured by the form it has taken, just as genes can be passed on via hosts that do not express them phenotypically. Furthermore, as the cultural environment changes many magnitudes faster than the physical one, the interaction between the replicating unit of evolution and its environment is blurred. Selection pressures, over long periods of time, impact on which genes survive in the long term (via the successful or unsuccessful interface of phenotype with environment). In the case of culture this is all happening so fast that the assumption that cultural evolution is Lamarckian may be an illusion. Certainly, it has not been proven that if culture evolves, it does so in a Lamarckian fashion. Darwinian evolution is based, after all, on an algorithmic process of replication. The *materials* evolving in biological and cultural evolution are completely different, but that does not mean that a similar algorithmic principle is not at work at the heart of the process. As for the digital/analogue distinction, copying fidelity is not as significant as the fecundity of copies, according to Dawkins and others. Susan Blackmore responds to this as follows:

The Darwinian algorithm can run whether you have got digital or analog information [...]. It will run better and with higher fidelity if it is digital. But it can run over analog information. (Blackmore, as cited in Brown, 1997)

Stephen Pinker's assessment of the meme is similar to Maynard Smith's but he introduces another aspect that needs considering:

the theory [...] has led to few interesting discoveries in the thirty years since *The Selfish Gene* was published; nor have we learned much from the looser analogies between biological and cultural evolution that have been bruited for decades. As a number of evolutionary psychologists have pointed out, if “cultural evolution” means anything more precise than the co-opting of the word “evolution” to mean “historical change,” the analogy is seriously misleading. Ideas, unlike genes, are not copied across generations with high fidelity, and they don't mutate by blind, random processes. Rather, they are crafted by a ten-trillion synapse human brain, guided by its anticipation of how the stories will affect the similarly complex brains of readers or listeners. The analogy of cultural change as to biological evolution leaves the human mind out of the picture entirely. (Pinker, 2007, p.4)

The simple fact that the theory has not led to many “interesting discoveries” in the short space of thirty years has little to recommend it as an objection – ideas about biological evolution (Lamarck's for instance) were around for hundreds of years before Darwin figured out how it could actually work. However, Pinker's claim that an analogy between biological and cultural evolution leaves the human mind out of the process needs to be addressed. His dismissive treatment of the theory shows little consideration of the body of work that others have done since it was introduced, in sketchy outline, in *The Selfish Gene*. Biological anthropologist Robert Aunger, for instance, in *The Electric Meme* (2002), argues that if the meme exists it must be, essentially, a neurological unit of some kind. Aunger insists that the existence of memes should be proven first, before anyone gets carried away with theorising what they can explain about how culture develops (as he accuses Susan Blackmore of doing). He suggests that their existence or non-existence could possibly be empirically proven by neuroscience in the future. He is not alone – there are brain scientists such as Juan Delius who are attempting to prove or disprove whether memes could be some kind of “neuronal hardware” (Dawkins, 2006,

p.323). This does not leave the human mind out of the loop at all, unless one takes a dualist position in separating mind from brain, and viewing the former as a disembodied entity, which Pinker certainly does not.

It is perhaps unwise to make broad assumptions about what a theory in such an early stage of development does or does not entail. There is no substantial reason why meme theory should be considered as contradictory to the work of evolutionary psychologists. Dawkins himself is a sociobiologist and the meme emerged from his work in that field. If evolutionary psychology can supply the foundations of how human intelligence, emotions, behaviours and consciousness evolved, perhaps it will be found that meme theory, or something like it (there are other epidemiological theories of culture in development) slots into place at some point in the story. Possibly, once culture of any complexity evolves, this gives rise to a new level of evolution in which memes, with origin in material human minds, start to replicate, mutate and take on a life of their own in an ever growing collective meme pool. The births of the internet and of artificial intelligence make this area of inquiry even more relevant today.

Edward Slingerland argues that sometimes, when the lower levels of causation are not available to us, when we do not fully understand the deeper principles behind a phenomenon, we are forced to study it with a “placeholder” standing in for information that we hope in time to be privy to (Slingerland, 2008, p.259). A pertinent example is Darwin unfolding the principles of natural selection without a clear understanding of the unit of inheritance. The higher level work is undertaken in the understanding that the lower level explanation will manifest. The meme may be a placeholder, an inexact and improperly understood entity itself, which nonetheless allows us to observe higher level processes from a different perspective. Slingerland is also among the many scholars from different disciplines who are calling for vertical integration, so that the higher levels can start working their way down towards the lower levels on the ‘tree of knowledge’ as well as vice versa. Regardless of its currently inconclusive scientific status, meme theory is still worthy of consideration within the humanities. While Robert Aunger’s calls for caution may be well justified, a theory of culture *does* need to be tested from within the field of culture, by those with expertise and breadth of knowledge in that field, not left solely to those in the scientific disciplines to prove or disprove empirically.

As previously mentioned, Auger suggests the possibility of the meme being empirically proven to exist by studies in neuroscience. In his “Endnotes” – written for the 1989 publication of *The Selfish Gene* and responding to some of the reactions to its original 1976 publication – Dawkins mentioned that a brain scientist in Germany had published a paper on what the “neuronal hardware of a meme might look like” (Dawkins, 2006, p.323). Dawkins was pleased that the brain scientist, Juan Delius, had pursued his analogy of the meme with a parasite, or rather something on the spectrum of parasitic entities:

I am particularly keen on this approach because of my own interest in ‘extended phenotypic’ effects of parasite genes on host behaviour [...] Delius, by the way, emphasizes the clear separation between memes and their (‘phenotypic’) effects. And he reiterates the importance of coadapted meme-complexes, in which memes are selected for their mutual compatibility. (Dawkins, 2006, p.323)

These two crucial points about memes seem pertinent to me: the separation of *memetic* information from *phenotypic* expression is stressed once again; and the idea of memes forming alliances with other, compatible memes and thus forming mutually assisting meme-plexes. This might be a productive way of looking at the inter-textual and intra-textual relationships between ideas and their expression.

Literary Darwinists are extolling the value of evolutionary psychology as a tool for textual analysis and it should be pointed out that the theories of culture being developed in that field are not much more conclusively proven than the meme, nor do they fundamentally oppose it. Meme theory seems to me particularly suited to the analysis of mutable forms of cultural expression and communication such as cross-textual and cross-cultural adaptation. I am by no means suggesting that all textual analysis should be “reduced” to meme theory, only that it might prove to be a useful and interesting extra tool to develop. What the meme potentially offers, as a tool for (inter)textual analysis, is a means of tracing ideas, themes and possibly stories across texts, people and environments. Where this differs from other theoretical distinctions between narrative form and story, such as *sujet* and *fabula*, is primarily that the meme is a replicating unit of culture that has emerged as a theory from the fundament of evolutionary science. Meme theory might be more readily integrated, or develop a dialogue, with other disciplines informed by evolutionary theory, thus widening the

contexts for the study of mutable forms of culture. It re-contextualises and re-frames the study of shifting forms and underlying ideas. Meme theory also refocuses attention on underlying memes/stories/fabula and decentres the author/artist/subject, without excluding or negating the study of form or the creativity of the latter. It may prove to be especially well suited to our current cultural environment, with its highly mutable forms of expression and reception, and rapid replication and transformation of texts across media. Moreover, the meme can be broken down to a very small unit, smaller than a story, or combined with others in mutually compatible meme complexes. The meme was not conceived as a tool for textual analysis, so it might prove to be more flexible and to have wider applications than narratology, formalism or structuralist theory. The undeniable similarities and connections between the meme and these other approaches to textual analysis suggest to me that the humanities, from their place in the upper reaches of the tree of knowledge, have for some time been delving deeply into areas of epistemology where some form of vertical integration with the lower levels, specifically the biological sciences, might be viable. Where, more precisely, the meme may or may not lead in terms of textual analysis is purely speculative at this point, as there is no current body of work (of which I am aware) to reference. If meme theory continues to be developed and certainly if it becomes a science, the range of its applications and implications will become more evident.

Adaptation theorist Linda Hutcheon's assessment of what meme theory might say about adaptation theory is as follows:

Although Dawkins is thinking about ideas when he writes of memes, stories are also ideas and could be said to function in this same way. Some have great fitness through survival (persistence in a culture) or reproduction (number of adaptations). Adaptation, like evolution, is a transgenerational phenomenon. Some stories obviously have more "stability and penetrance in the cultural environment", as Dawkins would put it. [...] Stories do get retold in different ways in new material and cultural environments; like genes, they adapt to those environments *by virtue of* mutation – in their "offspring" or their adaptations. And the fittest do more than survive; they flourish. (Hutcheon, 2006, p.32)

Another interesting point raised by Hutcheon, and which also directly relates to my experience in writing this thesis, is that adaptations may be experienced before adapted

texts, thus undermining a linear understanding of the reception process. She writes: “our interest piqued, we may actually read or see that so-called original *after* we have experienced the adaptation, thereby challenging the authority of any notion of priority. Multiple versions exist laterally, not vertically” (Hutcheon, 2006, xiii). This was how I experienced *The Orchid Thief*, my interest deeply piqued by seeing *Adaptation*. Another embedded text in *Adaptation* is *On the Origin of Species*, which I also read in entirety for the first time after seeing the film and feeling inspired to write this thesis. I had read only passages from it previously, and multiple references to it in texts including *The Selfish Gene*, in which it is a fundamentally embedded text. Indeed, *The Selfish Gene* is an adaptation of Darwin’s theory of evolution by natural selection. This is just one small example of the myriad ways in which we can experience combinations and permutations of related texts (and parts of texts) and of how the dialectical energy produced by the reception process feeds into and out of a creative process.

Regardless of whether or not meme theory can be developed further and established as a science, it could offer a valuable alternative to the proliferation of teleological thinking and a way of approaching texts from a different perspective, from the point of view of the *ideas* that inhabit texts and travel between them. Ideas, beliefs and stories outlast us. They create us, as well as vice versa. They evolve and change via us as their hosts. They outgrow us and move on and leave us behind. And we are changed by them. Just as our genes will outlive us an infinite number of times over, “our” ideas will do the same. Perhaps if we can accept that “change is not a choice” (Kaufman, 2002, p.79) we will learn to do it better, and with better grace. By taking on an idea or story or part of a story and mutating it via our own particular, unique filter, we are contributing to its collective authorship and taking our places in a highly complex, creative web of human communication. This is what adaptation, to me, is really about.

Chapter Five:

Parasites/Epiphytes/Symbionts

Laroche's Leeches.

Memes have been described, by Richard Dawkins and others, as viruses or parasites of the mind, and these catchy metaphors have become an integral part of the meme-meme. However, it is a matter of perspective whether one sees a particular meme or meme-plex as a nasty contagion, or as something entirely positive, or anywhere in between.

Dawkins, Dennett and others have stressed that there is a much wider spectrum of commensals, which are organisms that live as tenants of others: “malignant parasites are one extreme, benign ‘symbionts’ the other extreme” (Dawkins, 2006, p.323). The following textual analysis is the starting point of an extended reading of *The Orchid Thief* and *Adaptation* from various perspectives. It traces a meme through its various metamorphoses in several texts.

In “Orchid Fever”, an article by Susan Orlean published in *The New Yorker* in 1995, Orlean brought to the attention of a wider public a man named John Laroche, who had been arrested in Florida for poaching rare wild orchids from the Fakahatchee Strand State Preserve. Orlean read about the arrest in a local Florida newspaper whilst skim reading for articles of interest, a habit of hers. She describes her process in *The Orchid Thief* as follows:

I read lots of local newspapers [...] and most particularly the articles that are full of words in combinations that are arresting. In the case of the orchid story I was interested to see the words “swamp” and “orchids” and “Seminoles” and “cloning” and “arrest” together in one short piece. Sometimes this kind of story turns out to be something more, some glimpse of life that expands like those Japanese paper balls you drop in water and then after a moment they bloom into flowers. (Orlean, 2000, p.5)

This little piece of poaching on Orlean's part led to her initial meeting with Laroche, in Florida, outside the courthouse door, right after his preliminary hearing. Orlean “hung

around” with Laroche, on and off, for two years afterwards, interviewing him and, eventually, many others in the Florida orchid community. Those few words from the pen of an unnamed local journalist in Florida, written in a combination that Orlean found arresting, has resulted in many more interesting permutations.

John Laroche is an articulate and loquacious individual. A lot of his words are quoted verbatim in “Orchid Fever”, the New Yorker piece, and in *The Orchid Thief*, the novel-length non-fiction book that followed, as the Japanese paper ball Orlean had dropped in water expanded and flowered. Quite a few of his words make their way into *Adaptation* too. In “Orchid Fever” Orlean describes Laroche's colourful persona, his chequered background and his serial monomania, at the time of their meeting focused on rare orchids (since childhood he had had a habit of falling profoundly in love with one thing, be it turtles, fossils, lapidary or re-silvering old mirrors). She goes on to briefly describe the complexity of orchids, the history of orchid collecting and the obsessive nature of collectors, the story of how Laroche came to be employed by the Seminole Tribe of Florida and the particular history of orchids in Florida and the community of enthusiasts that have evolved around them. Always, she returns to Laroche as the focal point. Apparently she was not the only one to be attracted to Laroche's energy and passion:

One afternoon [...] he began to talk about the amazing adaptability of plants, and mentioned that the plant with the largest bloom in the world, the rafflesia, lives parasitically in the roots of a tree and eventually devours its host. He said that back when he had his nursery many people would call him to talk about plants, but he could tell that they were just lonely and wanted to talk to someone, or that they were competitive and wanted to test their knowledge against his. He said “I felt sometimes like they were going to consume me. I felt like they were the parasite plant and I was the big host tree”. (Orlean, 1995, p.2)

Laroche's pronouncement, a florid metaphor taken from nature, survives transposition from “Orchid Fever”, the article, to *The Orchid Thief*, the book, but not without a certain amount of transformation:

Day and night people dropped by his nursery to talk to him about orchids and to admire his collection [...] He thinks some of them called just because they were lonely [...] This image of their loneliness seemed to daunt him. He stopped

talking about it and then started explaining to me why he loved plants. He said he admired how adaptable and mutable they are, how they have figured out how to survive in the world [...] he asked if I was familiar with the plant that has the biggest bloom in the world, which lives parasitically in the roots of a tree. As the giant flower grows it slowly devours and kills the host tree. “When I had my own nursery I sometimes felt like all the people swarming around were going to eat me alive”, Laroche said. “I felt like they were that gigantic parasitic plant and I was the dying host tree”. (Orlean, 2000, pp.20-21)

As well as a slight change in the reported order of Laroche's train of thought, the two “quotes” ascribed to him are worded differently – “I felt sometimes like they were going to consume me” becomes “I sometimes felt like all the people *swarming* around were going to *eat me alive*”, and “they were the parasite plant and I was the big host tree” becomes “they were that *gigantic parasitic* plant and I was the *dying* host tree”. The later version is more adjective heavy and metaphorically rich, more visual and dramatic. It is impossible to tell which is a more accurate rendition of what Laroche actually said and is absolute fidelity important anyway? If the latter version reads better, yet still retains the important information about how Laroche felt about his customers and how they saw him, does Orlean have any ethical imperative to report his exact words?

The Orchid Thief is not a novel, nor is it exactly journalism; it is a novel-length, non-fiction book whose characters are real people, including Orlean herself. It is partly a history of the human love affair with orchids, partly an impressionistic biography of John Laroche, and partly a philosophical musing on the nature of passion. A case could be made that it is also partly autobiographical, in an indirect sense. It is a kind of literary form of journalism, hard to classify as belonging to a defined genre.⁷ It does not aim to be objective, indeed its subjectivity is openly foregrounded, yet its subjects are real people who are often quoted at length. This issue of genre and ethics as regards *The Orchid Thief* and *Adaptation* as literary journalism/non-fiction novel and adapted/original screenplay hybrids is worthy of further consideration later.

⁷ Susan Orlean prefers to call herself simply a writer of non-fiction (S. Orlean, personal communication, November 21, 2008).

Laroche's "host tree preyed upon by lonely parasites" metaphor is referenced again in *Adaptation* in an early scene between Susan Orlean, played by Meryl Streep and John Laroche, played by Chris Cooper:

Laroche: People started coming out of the woodwork to ask me stuff and...admire my plants and admire me. I think some people were really spending time with me because they were lonely.

Orlean reacts to this. She feels caught.

Laroche: You know why I like plants?

Orlean: Huh-uh

Laroche: Cause they're so mutable. ...Adaptation's a profound process. It means you figure out how to thrive in the world.

Orlean: Yeah, but it's easier for plants. I mean, they have no memory, y'know. They just move on to whatever's next. But for a person adapting is almost shameful. It's like running away. (Kaufman, 2002, pp.34-35)

This exchange gets to the crux of the issue of adaptation. It is a profound process and a deeply creative one, yet it is also destructive; in order to live, change must occur and the part of something that cannot be adjusted has to die. As always, with humans, consciousness can be a curse. Whereas Laroche is able to adapt and remain fluid, moving on without regret, Orlean and Kaufman, both self-analytical intellectuals, find the process painful. Yet the alternative is stasis/impotence/death. This theme is constant throughout both *The Orchid Thief* and *Adaptation*. The self-reflexive irony of an adapter writing the line "adapting is almost shameful" should not be overlooked either.

Experiencing a chronic case of writer's block when faced with the task of adapting *The Orchid Thief*, Kaufman reads between the lines and looks for Susan Orlean there. Following on from Orlean's pursuit of Laroche, Kaufman now pursues Orlean. This is visualised in *Adaptation* in the form of Kaufman's daydreams of her and in many scenes that show him, *The Orchid Thief* and highlighter pen in hand, ruminating obsessively over her words, which scroll across the screen. Readers of the book also feel her

presence vividly throughout – it is a highly subjective piece of writing in which Orlean places herself centrally, almost as a character, yet often hides from direct examination. The character Susan Orlean's reaction in the above scene – “*Orlean reacts to this. She feels caught*” – is a canny reading of several passages in the book in which the reader senses the real Orlean's slightly uncomfortable self-awareness in her slippery, ambivalent role as spectator/ confidante/ participator/ reporter. Furthermore, the wistful sense of longing (a desire to feel the intense passions she witnesses in others) that permeates her writing is dramatised in *Adaptation* as a vague unhappiness in her marriage and lack of fulfilment in her successful career, culminating in her extra-marital affair with Laroche and absurd ghost orchid drug addiction. She is one of the lonely people drawn to Laroche (one of the parasites cleaving to his host tree), we sense when reading *The Orchid Thief*. Kaufman's script both subtly and delicately articulates this and then, ultimately, exaggerates and pastiches it. If we return to *The Orchid Thief* for a moment here, we can find sources for Kaufman's dramatisation of the Orlean character in the film:

We weren't natural friends. He struck me as the late-sleeping, heavy-smoking, junk-food-eating, law-bending type, whereas I am not, but I am the sort of person who finds his sort of person engaging [...]. The current of his mind and behaviour was more riptide than rivulet. I didn't care all that much whether what he said was true or not; I just found the flow irresistible. (Orlean, 2000, p.33)

Orlean is deeply, fundamentally attracted to her subject – Laroche. She spent two years of her life following him around and listening to and recording his particular take on life. He is the hub around which everything in *The Orchid Thief* turns. As this extract illustrates, he is her negative image – her polar opposite, the yang to her yin. His appetite for life is exactly what she feels she lacks and the antipathy she at times, quite clearly, feels towards him is completely in keeping with her recognition of this. Her reasons for tagging along with him for so long are articulated in the most powerfully personal, revealing piece of prose in the book:

If the ghost orchid was really only a phantom, it was still such a bewitching one that it could seduce people to pursue it year after year and mile after miserable mile. If it was a real flower I wanted to keep coming back to Florida until I could see one. The reason was not that I love orchids. I don't even especially *like*

orchids. What I wanted to see was this thing that people were drawn to in such a singular and powerful way [...]. It was religion. I *wanted* to want something as much as people wanted these plants, but it isn't part of my constitution. I think people my age are embarrassed by too much enthusiasm and believe that too much passion about anything is naïve. I suppose I do have one unembarrassed passion – I want to know what it feels like to care about something passionately. (Orlean, 2000, p.47)

Orlean makes a direct correlation between the orchid lovers' passion for rare flowers (and her own unattached, undefined longing) and religion, or the passionate fervour religion inspires. It might be over-simplifying it to read this kind of devotion as a direct exchange, or replacement for religion, ousted by Darwin's dangerous idea. But what Orlean signals is the sensing of a void and the desire to fill it – a human need that religion has, in one form or another, always been posited to fulfil. It is interesting, moreover, to replace the word “age” here with the word “class”. One of the key themes in *Adaptation* and in adaptation studies in general is the classist conception of high and low culture. In *Adaptation* the theme is foregrounded, even personified, but in *The Orchid Thief* it lurks rather uncomfortably in the subtext and in the relationship between writer and subject. This underlying theme will be discussed in more depth in the following chapter.

Returning to *Adaptation* now, the parasite meme resurfaces again, finally, in an angry exchange between Laroche and Orlean, lost in the swamp whilst Laroche is trying, unsuccessfully, to find a ghost orchid for Orlean:

Laroche: [...] you're just like everybody else. Fucking leeches! You just attach yourselves to me and...suck me dry, spit me out. You know, why don't you get your own fucking life? Your own fucking interests? Fucking spoiled bitch! (Kaufman, 2002, p.63)

The criticism, this time, is aimed squarely at Orlean, poacher of Laroche's ideas and interests and life story; and by association, in such a self-reflexive film, at Charlie Kaufman and the filmmakers and at adapters in general. Laroche's unease at being sought after by lonely plant-lovers has become full throttled rage at the quietly relentless writer who has been dogging his every move, desperately needing him to

show her a ghost orchid and wanting something vague and undefined from him. Kaufman has transposed the parasitic plant to the murky swamp water of the Fakahatchee Strand as a leech lurking beneath the surface. It is still a bloodsucker, a drainer of life and energy from the host, Laroche. The parasites/leeches now include not only Orlean but Kaufman too.

This scene can be read in many ways; as Kaufman giving Laroche a chance to voice the class-conflict subtext in his relationship with Orlean – “spoiled bitch!”; as pre-empting the often negative critical reception of adaptations; as Kaufman critiquing Orlean and her methods and turning the glare of critical self-examination on himself as adapter of her book. As I have previously discussed, in his introduction to *Literature and Film* (2003) Robert Stam takes *Adaptation* as his starting point, or way in, to a discussion of the eight main sources of hostility to adaptations of literature, of which he lists parasitism as the last. In his short analysis of the film Stam writes: “Laroche also invokes the metaphor of the parasite, a trope typically deployed against adaptations, seen as parasitical on their source texts” (Stam, 2003, p.3). Four pages later he writes: “A final source of hostility to adaptation is the charge of parasitism. Adaptations are seen as parasitical on literature; they burrow into the body of the source text and steal its vitality” (Stam, 2003, p.7). It appears that Stam has encountered the parasite metaphor in several other guises, but the explicit mention of it, in his overview of adaptation criticism, ties in with his previous discussion of *Adaptation*.

Thus, we can trace the mutation of the parasite meme as follows:

- the fact of the rafflesia plant existing in the natural world as a parasite that devours its host.
- Laroche using the parasitic plant as a metaphor for his nursery customers, greedy for his resources of energy and knowledge.
- Orlean quoting/paraphrasing him in *Orchid Fever*.
- Orlean quoting/paraphrasing him again in *The Orchid Thief*.
- Kaufman paraphrasing Laroche's statement that his customers were lonely in *Adaptation*.

-Kaufman transforming the parasitic plant (Laroche's customers) into a leech (Orlean et al) in *Adaptation*.

-Less easy to place in this memetic web, but undoubtedly within it, is Robert Stam listing parasitism as one of the common charges against adaptations in general.

-Extra-textually, but certainly forming a powerful connection in my mind, is Dawkins' (and others') analogy of memes with parasites, or commensals (organisms ranging from malignant parasites through neutral epiphytes to benign symbionts) of the mind. The parasite meme is thus a peculiarly self-reflexive one.

It is in the nature of human discourse that as an individual's statements are reported and re-reported their replication becomes more and more imperfect and imprecise, as in a game of "Chinese whispers". The process is analogous to how human genes replicate. Evolution cannot occur without mistakes in replication. In very basic terms, a gene is a unit of replication that makes as many copies of itself as possible in order to increase its chances of survival. Along the line tiny, almost imperceptible changes occur – errors in the replication process. These errors cause mutation, and mutation is what fuels evolution. Perhaps the adapters/adaptations-as-parasites meme-plex can be mutated further – towards a relationship more symbiotic than parasitic. Symbionts have benign, mutually beneficial relationships with their "hosts". There is no reason why the intertextual relationship between adapted texts and adaptations should not be seen in this positive light as well as the negative one in which it is often cast.

Holy Ghosts and Meme Mediums.

The fabled, elusive ghost orchid at the heart of *The Orchid Thief* is far from being a parasite slowly murdering its host. The ghost is another kind of commensal, an epiphyte – it takes shelter and root from its host tree, causing it no harm but taking its nourishment from the surrounding environment. It is an example of an adaptation that has achieved symbiosis with its niche environment and it is testament to the extraordinary beauty that the evolutionary accumulation of design, based on a simple algorithmic process, can produce.

The ghost is the gloriously appropriate, popular name for *Polyrrhiza lindenii*, the orchid/icon at the heart of *The Orchid Thief/Adaptation* intertext. It has an ethereal,

delicate beauty and it is very rare and almost impossible to cultivate. Orlean, despite her stubborn refusal to become hooked on orchids (in all the time she spent in the Florida orchid community she refused to accept one of the many flowers she was offered), is desperate to see one; other peoples' fascination fascinates her. Orlean explicitly states what she thinks the ghost orchid is a substitute for, in the minds of those who pursue it: "It was religion" (Orlean, 2000, p.47). From a memetic point of view, it is the Holy Grail meme, reincarnated in an incredibly elusive flower and pursued by a dedicated few – the Knights Templar of today – who are obsessed enough to traverse hostile terrain (fetid swamps) and risk mortal danger (alligators, snakes, becoming lost in an infernally hot wilderness) in its pursuit.

Early in her sojourn in Florida, Orlean enters the Fakahatchee swamp with a park ranger (and orchid collector) named Tony, searching for the ghost orchid. She quizzes him as to why he thinks people are so obsessed with orchids that they will go to dangerous extremes to possess them. His response: "I think the real reason is that life has no meaning [...]. You wake up, you go to work, you do stuff. I think everybody's always looking for something a little unusual that can preoccupy them and help pass the time" (Orlean, 2000, p.44-45). This sense of existential meaninglessness is a void which most humans feel a need to fill with a sense of purpose – with teleology, essentially. Whether it be religious faith or orchids, caring about something is undoubtedly essential to human existence, indeed it is a survival tool. It provides the impetus for every individual's life story, the quest for each person's own heroic narrative. As Orlean articulates it:

There are too many ideas and things and people, too many directions to go. I was starting to believe that the reason it matters to care passionately about something is that it whittles the world down to a more manageable size (Orlean, 2000, p.133).

In a post-Darwin environment, without God's mysterious, yet compelling purposes as author and anchor, this search for meaning has been cast wide open. There are abundant stories of excessive devotion to orchids in *The Orchid Thief*, from the Victorian era to the present day. The obsessive orchid collector has found a potent locus of meaning and purpose. For one thing, orchids are apparently limitless in their permutations – there are tens of thousands of naturally occurring varieties and hybridisation has extended the

potential for subspecies infinitely. They are, therefore, impossible to ever completely possess. Many are also notoriously tricky to maintain, although if they have their needs met they can outlive humans indefinitely, outlasting generations of human caretakers – making them almost immortal, yet not invulnerable. Some are so rare that a collector could spend a lifetime in suspended hope of attaining them. Many bloom rarely and briefly, rewarding intense, long term devotion with a gift all the more precious because it is fleeting. They are a heady mixture of the physically tangible and, at the same time, that which is tantalisingly intangible and out of reach. There is an inexhaustible supply of orchids for even the most avid collector to strive to possess, yet they defy ownership. Indeed, they possess their owners rather than the other way round. Moreover, orchids present – through hybridisation – the opportunity to play God and create new species. They are, therefore, an especially apt substitute for religion.

Orlean includes a great deal of commentary, her own and others', on this analogy between orchid collecting as religion and on hybridising and cloning as godlike pursuits. Hybridizing is tricky, its goal "to cross-pollinate two plants with good qualities and end up with a hybrid that has the best qualities of each of its parents" (Orlean, 2000, pp.176-177). John Laroche takes a typically direct stance on the subject: "That's the cool thing with hybridizing. You are God. You do the plant sex. It's a man-made hobby" (Orlean, 2000, p.113). Hybridising is a matter of personal and professional pride, not to mention financial reward, for cultivators but also "a matter of something unimaginably profound – it was a matter of shaping evolution" (Orlean, 2000, p.321). Hybrid creators harness the principles of selection and try to put themselves in the driver's seat, guiding the evolutionary direction of species. It is, however, an incredibly unpredictable and difficult process. Orchid guru and sophisticate Dr Martin Motes, the grower and hybridiser with a PhD in poetry, has a running joke that posits him as high priest of this quasi-religious cult. Motes addresses his starry eyed orchid buyers: "Dearly beloved" and chides them for their worship of idols: "Thou shalt not covet" (Orlean, 2000, p.184-185). Discussing a twenty-five year old *Vanda* that he created for one customer with another who has inherited it, Motes says: "it will live long after you [...]. The marvellous plant world. We are but visitors in it" (Orlean, 2000, p.310). Even when playing god as a hybrid creator, the wider plant world puts in their place those who would take their acts of hubris too seriously. They will be outlived by their own creations.

Towards the end of *The Orchid Thief*, Orlean also describes how Laroche narrated to her a story of his childhood, about the time he and his (now deceased) mother:

walked through a charred prairie in the Fakahatchee and came upon a single snowy *Polyrrhiza lindenii* in bloom. The way he recited this made it sound like a fairy tale or Bible story – the bleak journey with the radiant finale, the hopeful journey through darkness into light. (Orlean, 2000, p.336)

If the ghost orchid is the Holy Grail, then Laroche is Sir Galahad (with a twist). Laroche's inverse twin gifts for devotion and detachment fascinated Orlean, but the latter proved to be the greater mystery to fathom. Orlean muses on the subject of passionate devotion at length and finds many and varied case studies. She ultimately concludes that Laroche is an extreme version of a type – the avid collector who derives emotional intensity, mental focus and forward momentum from following a particular grail. But what distinguishes Laroche is his unusual capacity for sudden and total detachment.

As much as I marvelled at Laroche's devotion to the things he was devoted to, I marvelled even more at his capacity for detachment [...] I had never pictured that his transit from one passion to another would be so complete [...] "Done," he said to me [...] "I told you, when I'm done I'm done." [...] I had been fascinated by how he managed to find the fullness and satisfaction in life in narrow desires – the Ice Age fossils, the turtles, the old mirrors, the orchids. [...] Now I was also trying to understand how someone could end such intense desire without leaving a trace. (Orlean, 2000, p.302)

In terms of memetic epidemiology, Orlean's mind is colonised by Laroche and his ideas from the moment she reads the alluring combination of words – swamp, orchids, Seminoles, cloning, arrest – in a local newspaper article about his arrest for poaching. Laroche's own mind seems to be fertile soil for memes to take root and blossom in. His all-consuming, consecutive passions, according to Orlean: "arrived unannounced and ended explosively, like car bombs" (Orlean, 2000, p.2). The way this process occurs with him is so extreme it both fascinates and repulses her. She is deeply perplexed by it, as it seems to have no clear explanatory basis. Laroche's peculiar gift is that whilst he is particularly susceptible to being infected by virulent memes, seemingly coming out of

nowhere, he is also singularly capable of ridding himself of the contagion, becoming suddenly and absolutely inoculated and moving on. This adaptability and mutability is precisely what attracts Orlean to him initially: “The current of his mind and behaviour was more riptide than rivulet [...] I just found the flow irresistible” (Orlean, 2000, p.33). From a meme’s eye view, Laroche is a channeller, or medium. Although his own infection may be short lived, his zeal and enthusiasm spread like wildfire – he is fecund. And as we have seen with both genes and memes, fecundity is far more important, in survival terms, than the longevity of individual copies. Laroche might personally cast off each meme after a time, like a snake shedding skin, but not before spawning copies of it with enormous energy.

He certainly succeeds in infecting Orlean with what I will, with tongue in cheek, dub the Holy Ghost meme. I have suggested that this is an incarnation of the Holy Grail meme, which is the archetypal floating signifier (what is the signified – a cup that Christ drank from at The Last Supper, a bowl from which he ate or, even, the Last Supper itself?⁸) and an exceptionally robust meme that has repeatedly resurfaced across cultures and a vast range of texts and media. However, the ghost orchid, whilst imbued with an intangible, apparently metaphysical value, is also material, both signifier and signified. We can attach meaning or value to it in our uniquely human way, yet it is undoubtedly of material origin. It is, in short, a Darwinised grail.

I wanted a Fakahatchee ghost orchid, in full bloom [...] I wanted the bloom to be snow-white, white as sugar, white as lather, white as teeth. I knew its shape by heart, the peaked face with the droopy mustache of petals, the albino toad with its springy legs. It would not be the biggest or the showiest or the rarest or the finest flower here, except to me, because I wanted it. In the universe there are only a few absolutes of value; something is valuable because it can be eaten for nourishment or used as a weapon or made into clothes or it is valuable if you want it and you believe it will make you happy. Then it is worth everything as well as nothing, worth as much as you will give to have something you think you want. (Orlean, 2000, pp.318-319)

⁸ It has been suggested by some followers of grail-lore that “grail” is actually a typo, an error in replication (a mutant, memetic slip of the tongue or quill) which should read “quail”, the substance of Christ’s last meal. I hope the humour of this is not lost on my reader.

Why does Orlean want a ghost orchid? Throughout her long sojourn in Florida, she refuses to possess a single orchid and even confesses that she doesn't especially like them. This could be read, then, as an example of memetic infection – in the absence of a passion of her own, she is infected by one of Laroche's. But what makes her so susceptible to this particular meme? This passage, along with others in the book, suggests to me that a large part of her intellectual and emotional journey in writing *The Orchid Thief* is one of understanding the world in Darwinian terms – that the struggle for existence is at the heart of our experience as humans and that, therefore, real value lies in the material basics – food, shelter, weapons (and in reproduction). This bald, unadorned, “ugly” reality can feel at odds with our big-brained sense of ourselves and our complexity. It undermines our sense of the value of more complex, less tangible things, which are worth everything and/or nothing only in terms of our desire for them. The ghost orchid is exceptionally beautiful in its symmetry, unusual in form and complex in its design and interaction with its niche environment. It is just a flower, yet it is a highly evolved one and thus, perhaps, it represents the possibility of recognising the beauty in this brave new Darwinian world (and in ourselves). Darwin's own obsession with orchids is a subject discussed in *The Orchid Thief* and his presence is palpable throughout the text. The “holy ghost” meme that infects Orlean goes back, via Laroche, to Darwin himself. If he could see grandeur in this view of life, then so might she.

Many of Laroche's previous obsessions had been with living organisms (turtles and tropical fish, for instance) but his love affair with orchids was deeper and longer lasting than most, perhaps because they symbolised most perfectly his personal philosophy. Time and again in *The Orchid Thief* Laroche tells Orlean about his affection for mutation, his reverence for the adaptability of plants, and his hubristic delight in hybridisation. He even considers himself, with great pride, to have been mutated as a baby into the “incredibly smart” person he is (Orlean, 2000, p.19). Laroche's creed is adaptation and he has well honed survival instincts. Considering certain events in his life this seems to have been a hard won philosophy. He was involved in a car accident that killed his mother and uncle and put his wife in a coma (the reason for his missing front teeth incidentally); she left him shortly after her recovery; he had a nursery that was almost completely destroyed in the devastation of Hurricane Andrew and he also had an almost fatal accident with a pesticide that left him with permanent liver damage.

All of these factual events, represented in both *The Orchid Thief* and in *Adaptation*, happened before he had reached his mid-thirties. Although Laroche's serial monomania had been a characteristic of his since childhood, the events of his adult life had crystallised this trait into a personal philosophy of adaptability and mutability. His passionate adoption of obsessive hobbies and subsequent, absolute rejection of them thus continually (re)enacted and (re)affirmed his ability to adapt and change and remain fluid – in short, to survive.

Orchids, however, almost undid Laroche. He became sick with the strength of his attachment to them, they nearly proved too good a meme for even him to dislodge. In the final chapter of *The Orchid Thief*, Laroche is in the final stages of inoculating himself from orchids and, at the same time, Orlean is detaching and distancing herself from Laroche. Attending their final orchid show together, they encounter Barbara, an old friend of Laroche's for whom he had once had to "hack up a couple of snakes that got between her and a ghost orchid" in the Fakahatchee swamp (Orlean, 2000, p.327). When Laroche tells Barbara that he has renounced orchids she confides to Orlean: "He seems so much better now. For some people, it's just too intense, this whole orchid thing. It infects their whole being. John was just being eaten up by it" (Orlean, 2000, p.328). Laroche proudly announces to several other acquaintances: "I kicked the habit!" and "I gave it up!" This is not the only parallel drawn between orchid addiction and drug addiction in *The Orchid Thief*, the analogy taken to a literal extreme in *Adaptation*. When Orlean asks him if he misses the plant world, Laroche: "snorted and lit a cigarette. 'Of course I miss it,' he muttered. 'I mean *Jesus Christ*. You just have to find something else to fill up your life'" (Orlean, 2000, p.329). In an immunological process that he clearly recognises as such, and which causes him palpable pain, Laroche has finally rejected plants in favour of a significant new obsession – the Internet. The main reason, he told her, was that the Internet was "cool" and that it wasn't going to die on him (Orlean, 2000, p.304). Recently, "he had taught himself everything there was to know about computers and was [...] building websites for businesses and, as a private sideline, posting pornography on the Internet" (Orlean, 2000, p.303).⁹ What is especially interesting about computers being Laroche's latest contagion is that the

⁹ Along with the aforementioned analogy made in *The Orchid Thief* between orchids and drug addiction, this shows that the last third of *Adaptation* is not a complete departure from the adapted text. Even the sex, drugs and Internet pornography reference or amplify details or suggestions in *The Orchid Thief*.

internet is, to date, the ultimate device for the replication, combination and mutation of memes.

Perhaps the lesson that Laroche teaches Orlean, and the reason for her fixation on him, is that the way he lives shows that it is not so important what our ghost orchid *is* as much as it is important to have one – and to be able to adapt both *it* and ourselves. This is a lesson she learns all too well, as she leaves him behind and moves on to new subjects. Laroche's difficulty in detaching himself from orchids and his desire for a fixation that will not die suggests that he is more vulnerable than he appears to be throughout most of *The Orchid Thief*. Perhaps there is a price to pay for being such an effective "meme medium" – staying open and remaining fluid takes a toll. In the last chapter of *The Orchid Thief* we sense not only Laroche's pain at ridding himself of the orchid meme, but also an uncomfortable awareness that he is being discarded himself by Orlean. Throughout the book, Laroche is pathologically late and often unreliable, standing Orlean up on numerous occasions, seeming to take a perverse delight in thwarting her plans and being grumpy and difficult when he does go along with them. In the final chapter however, Orlean is shocked to find him turning up for their last meetings on time and full of enthusiasm for taking her to a last orchid show (when he has already given orchids up) and into the Fakahatchee swamp to find a ghost (which he has resisted throughout). He is noticeably and (given how well we have come to know his behaviour) surprisingly eager to please her and he seems keen to protract their time together. On their way to the Fakahatchee to look for a ghost, Orlean comments: "I knew him to be one of those people who are really sour in the morning, but that day he was very talkative" (Orlean, 2000, p.336). Laroche keeps up a running commentary in the swamp whilst searching for orchids for Orlean, at one point bursting out: "I found you two already [...] I'm going to show you one of every orchid you want today. I'll show you a fucking ghost orchid if it kills me" (Orlean, 2000, p.342). As the search continues to be unsuccessful and it becomes apparent that they are also lost in the swamp, walking in a spiral, Laroche's placatory chatter takes on a rather pathetic, even bathetic, air. Orlean, meanwhile, is quietly descending into despair, closely followed by rage at her defective Sir Galahad.

I did desperately want to see a ghost orchid in bloom, to complete the cycle, to make sense of everything I'd been doing in Florida, but at that moment I wanted

even more not to spend the night in the swamp. I also very much wanted to kill Laroche, to actually murder him and leave his body here [...]. (Orlean, 2000, p.345)

Orlean's basic survival instincts rise to the surface, effacing her more transcendent desires and even uncovering a dormant killer instinct beneath her polite middle-class demeanour. Throughout the book, Orlean has dropped many small but telling hints about her deep rooted fear of the swamp and the alligators lurking beneath the surface of its fetid water. By this point then, the reader is well aware of how powerfully she would have experienced these emotions, however wryly she relates the events. Once her anger has evaporated however, she "suddenly felt sorry for him, for having had his heart broken again and again" and she has a realisation:

I knew Laroche wanted me to see a ghost orchid as much or maybe even more than I wanted to see it myself, but now I really wanted most of all to go home. At this point I realised it was just as well that I never saw a ghost orchid, so that it could never disappoint me, and so it would remain forever something I wanted to see. (Orlean, 2000, p.347)

A paragraph later, Laroche and Orlean, having decided to just walk in a straight line, emerge from the Fakahatchee. This is the anticlimactic end of the book, but not the end of the story as continued in *Adaptation*. The events depicted in the final pages of *The Orchid Thief* are re-enacted two-thirds of the way through *Adaptation*. Chris Cooper as a nervous, edgy Laroche jabbars and fiddles ineffectually with his ad hoc sun-dial, while a tense Orlean, played by Meryl Streep, hovers wide-eyed. Kaufman's shooting script is very specific: "Laroche looks down and fiddles with the twig. Laroche smiles sheepishly at Orlean. Rage and panic sweep across her face, her fists clench into balls. Her eyes become wild, some dark fantasy plays out in her brain [...]" (Kaufman, 2002, p.63). This visual, but literal, translation of events is immediately followed by Laroche's angry outburst (entirely Kaufman's invention) in which he accuses Orlean of being a leech/parasite, after which they start walking purposefully straight ahead, see their car gleaming in the sunlight and emerge from the swamp. This is accompanied by Streep/Orlean's voiceover, reading an earlier passage, verbatim, from *The Orchid Thief* which is similar in tone and sentiment to (but without the note of conclusion of) the quote above:

life seemed to be filled with things that were just like the ghost orchid – wonderful to imagine and easy to fall in love with but a little fantastic and fleeting and out of reach. (Orlean, 2000, p.48/Orlean, as cited in Kaufman, 2002, p.63)

This is where the schism between texts occurs. In *Adaptation* we see “Kaufman” put down the finished book, completely under its sway (and that of its author) but utterly unable to find a way to adapt it into a cohesive film narrative. Henceforth he is forced to create an ending for himself. In this he is aided by Robert McKee and his twin brother Donald, champions of the genre film. While the last act of *Adaptation* parodies genre conventions and goes to absurdist, comic extremes it also continues to adapt *The Orchid Thief* on a deep, if obscured, level. One of the key ideas it draws out is the holy ghost/grail meme which it further transforms and extends by posing the question of what happens if you actually get your hands on one of these fleeting, out of reach signifiers. It is Donald (a disciple of McKee and his screenwriting bible *Story*) who finds the solution to his twin’s narrative predicament. Taking his cue from the brief reference in *The Orchid Thief* to Laroche’s new sideline in Internet porn, Donald looks up the site and finds a photograph of a naked Orlean posted on it. This startling revelation catapults the twins into the action packed last act of the film, set in Florida, where they pursue Orlean and Laroche. For Charlie, the holy grail/ghost of his own quest so far has been manifested in Orlean herself, who he has been pursuing through the pages of her book, always “a little fantastic and fleeting and out of reach” to him. Now, with her feet of clay rudely exposed, Charlie’s grail becomes a more tangible objective – a finished screenplay, the completion of the narrative.

At this turning point in *Adaptation*, we are returned to the scene in the swamp, at the close of *The Orchid Thief*, in which Orlean’s hopes of finding a ghost are dashed but in which she realises that this disappointment has protected her from a greater one – that of actually finding one. This time, however, the scene has a different ending. While the camera cuts from the naked photograph of Orlean on the computer screen to Charlie’s incredulous face, to a sleepless Orlean lying in bed with her sleeping husband, to the swamp (with Laroche in the middle of his “leeches” tirade) we hear Streep/Orlean’s voice: “What I came to realise is that change is not a choice. Not for a species of plant, and not for me. It happens, and you are different” (Kaufman, 2002, p.79). This is the

lesson that Kaufman senses Orlean learning in *The Orchid Thief*. It is a multi-levelled statement about adaptation – biological, personal and cultural. The swamp scene is replayed, but this time as Laroche and Orlean march forward out of the swamp they are stopped in their tracks by the sight of a ghost orchid, in full bloom, hanging from a tree. Laroche is triumphant, but Orlean “tries to feel some passion, but can’t muster it. “It’s a flower. Just a flower” (Kaufman, 2002, p.80).

Orlean’s disappointment is crushing, compelling Laroche to reveal the secret of the ghost orchid – that it has narcotic properties which can be extracted. The Seminoles, he explains, had traditionally used the drug in ceremonies but now some use it simply to get stoned. Orlean’s interest is piqued as Laroche goes on: “It seems to help people be fascinated” (Kaufman, 2002, p.81). The comic absurdity of Orlean’s ensuing ghost orchid drug addiction (parodying the “Hollywood treatment” of a book about flowers) overlays a more serious level of meaning. The holy grail/ghost meme is reduced to its essence: it is an illusion that life has an ultimate teleological purpose which renders it meaningful. The reason we follow grails, in various guises, is to maintain an (essentially illusory) sense of purpose. The drug that can be extracted from the ghost orchid, when it has been pulverised, makes Orlean feel a simple, deep and perfect symbiosis with nature and her fellow humans. It replaces purpose with simple wonder in the here and now, right under our noses. As we watch Orlean in ecstasies over blades of grass and industrious ants we can see both humour and pathos in it. As I have previously surmised, in *The Orchid Thief* Orlean is on a personal quest to find the beauty and grandeur in the Darwinian view of life. Kaufman divines this too, and he presents her with her deepest desire in *Adaptation*. However, as her new sense of wonder and peace is an illusion itself – created by a drug – the drug becomes a grail itself.

In order to maintain her habit and its secrecy, Orlean descends into a dark, murderous monomania – an exaggerated, negative image of the kind of monomania that *The Orchid Thief* is a study of. She becomes Laroche’s dark doppelganger and at the close of the film, the two sets of twins, Orlean/Laroche and Charlie/Donald are forced to either annihilate each other or to reintegrate as one. Kaufman continues to expose his characters’ deepest desires by giving them to them: to Laroche, he gives a voice to retaliate to Orlean: “Fucking leeches! [...] suck me dry, spit me out [...] why don't you get your own fucking life?” (Kaufman, 2002, p.63); to Orlean he gives the ghost orchid

and its secrets and Laroche's death (which she had, in passing, wished for at the close of her book); Donald finally gets a little love and respect from his twin and Charlie has his fractured psyche made whole again by the death of his twin and the conclusion of his screenplay. All of this play on mirrors, twins, oppositions and reflections serves to expose the apparent contradiction at the very core of what Darwin revealed to humankind – that infinite complexity and variety stem from the utter simplicity of the beginnings of life, beginnings that are shared even by entities that appear to be in polar opposition to each other. This consciousness of the Darwinian paradigm (and the use of twins as a narrative strategy) plays an integral role in *Adaptation* as I will discuss further in the following chapter.

A small but significant detail here will illustrate further the transformation processes at work in this unconventional adaptation: in an earlier version of Kaufman's screenplay, he had Orlean murder Laroche herself, rather than bringing in a *deus ex machina* to do the job. Then, in a subsequent draft, this *deus ex machina* took the form of a giant ape emerging from the swamp vegetation to tear Laroche apart. The final manifestation – the one that made it into the film – was an alligator. This little mutation is revealing of the merging of ideas and authors that takes place in an adaptation: apes are recurring figures in Kaufman's scripts, making appearances in *Human Nature* and *Being John Malkovich* (and in the evolution montage sequence early in *Adaptation*) and serving as reminders of our close relationship with the wider animal and biological world. The alligator, as previously mentioned, is a recurring character in *The Orchid Thief*, lurking both literally and metaphorically beneath the surface of the swamp – a surviving link to a primal, prehistoric past and reminder of the brutal reality of the food chain. Their exchange shows how an underlying theme or idea can be manifested in such a way as to better suit a different environment. It also shows how consciously Kaufman (and adapters generally, if not as ironically and self-reflexively) oversees and manipulates this process of change – no matter where the memes/ideas may originate, their expression can be adapted. Having Orlean murder Laroche would have been perfectly in tune with the logic of the last act of the film, but perhaps it was too great an opportunity to pass up to make a cheeky retort to McKee who had, a few scenes previously, advised Charlie to go back and find an ending to his script – to “wow them in the end” – but had admonished him “don't you dare bring in a *deus ex machina*” (Kaufman, 2002, p.70). Making the agent of Laroche's doom an alligator (via an ape) also foregrounds the play

on conflicting paradigms. After all, a *deus ex machina* is a skyhook, calling a god down from the heavens to fix an inconvenient narrative problem. Fittingly, the god in this instance is a primal, biological organism coming up from the waters of the swamp. This resonates with the much earlier, evolutionary montage scene in which we saw life emerging from the primeval soup to walk on the land. The latter is the film's second scene and the bookend to the denouement in the swamp, which is its second to last.

Is the holy grail/holy ghost meme a “bad” parasitic one, deleterious to the health of the host, or a “good” symbiotic one? Perhaps this depends on the complexes of memes it connects with in the individual mind, how it is manifested “phenotypically” and how it then interacts with its cultural environment. It may also depend on the adaptability of the mind in question. If there are such things as memes populating our minds, it is important to remember that we can reject them, if we consciously choose to, and immunise ourselves against those we consider dangerous to our well being. And we can also build complexes that work in our favour, according to the physical and cultural environments we inhabit – we can strive for symbiosis. Our bodies are the phenotypic expression of our genes, yet we are evidently still able to exert considerable control over them and their interaction with their environment, which in turn has such extensive effects on their development and survival prospects. If our minds are the phenotypic expression of our memes, it still holds that we have control and that we are the interface between memes and environment. Thus, all those involved in a process of adaptation can be read as a crucial part of this interface – the phenotypic expression of memes.

This chapter has attempted to make a case for the meme as a potential tool for the cross-textual analysis of adaptations. There is an awareness and thematic expression of the Darwinian paradigm in this particular intertext which may have facilitated my experiment with the meme, and I acknowledge the necessity of it being tried in other contexts while concluding that it seems, thus far, rather successful as a non-evaluative, flexible tool. In the next, and final, chapter my focus pulls back again a little, to look at how some of the recurring themes in adaptation studies, that were discussed in chapter three, are manifested across *The Orchid Thief* and *Adaptation*, and examine if and how those themes are transfigured by the light and shadows cast on them by the figure of Darwin, looming large across the intertext.

Chapter Six:

Cross-Pollination.

Darwin's Orchids.

Famously, orchids (as well as barnacles – he had eclectic and egalitarian tastes) were one of Darwin's favourite subjects of study. As Susan Orlean notes, in *The Orchid Thief*:

He often described them as “my beloved Orchids” and was so certain that they were the pinnacle of evolutionary transformation that it would be “incredibly monstrous to look at an orchid as having been created as we now see it.”
(Orlean, 2000, p.55)

Only ongoing creation, rather than a fixed, single act, could be responsible for the unique, eerie beauty of the ghost and the countless other strange and wonderful orchid species. Cross-pollination is crucial to this; plants that are cross-fertilised have far greater chances of achieving complexity of form and evolutionary endurance than those that reproduce asexually. This involves risk-taking; cross-pollinated plants must adapt so that their pollen can be easily taken up and scattered by the wind, or so that many insects will be attracted to them, or so that one particular insect will be dependent upon them and vice-versa in a totally mutual, symbiotic relationship.

Charles Darwin believed that living things produced by cross-fertilization always prevail over self-pollinated ones in the contest for existence because their offspring have new genetic mixtures and they then will have the evolutionary chance to adapt as the world around them changes. (Orlean, 2000, p.53)

There are long term evolutionary rewards to be reaped from the risky strategy of cross fertilisation – the variation it produces is crucial to surviving intense, rapidly changing selection pressures from the environment.

The theme of cross-fertilisation (and the symbiotic relationships it can engender) is one that is vividly and explicitly visualised in *Adaptation*. The following extract from *The Orchid Thief* and how it is manifested and transformed in *Adaptation* will illustrate:

In 1877 he [Darwin] published a book called *The Various Contrivances by Which Orchids are Fertilised by Insects*. In one chapter he described a strange orchid he had found in Madagascar – an *Angraecum sesquipedale* with waxy white star-shaped flowers and a green whip-like nectary of astonishing length. The nectary was almost twelve inches long and all of the nectar was in the bottom inch. Darwin hypothesised that there had to be an insect that could eat the unreachable nectar and at the same time fertilise the plant – otherwise the species couldn't exist. [...] He wrote: In Madagascar there *must* be moths with proboscis capable of extension to a length of ten to twelve inches! This belief of mine has been ridiculed by some entomologists [...]. If such great moths were to become extinct in Madagascar, assuredly the *Angraecum* would become extinct. (Orlean, 2000, p.55-56)

This extract illustrates the creative and theoretically imaginative aspect of the scientific process and inverts fantasy and reality, showing that truth can indeed be stranger than fiction. Darwin's hypothesis of this bizarre moth was ridiculed by entomologists as fantasy – nothing like it existed yet in their taxonomies of insects. His hypothesis was grounded in the fact of the flower which, when viewed through his newly awakened paradigmatic perspective of natural selection, necessarily posited a symbiotic insect as its other. Orlean goes on to quote Darwin's assertion: "I am sure that many other plants offer analogous adaptations of high perfection; but it seems that they are really more numerous and perfect with the Orchideae than with most other plants" (Darwin, as cited in Orlean, 2000, p.56). One wonders how Charlie Kaufman, studying *The Orchid Thief* in great depth, with a view to writing an adaptation of it, was struck by that passage. It certainly made an impact.

The persona of Charles Darwin and the legacy of his work are a deeply embedded textual meme-plex in both *The Orchid Thief* and *Adaptation*. In both texts we are made very aware of his shaping, underlying influence. Darwin makes his first appearance early in *Adaptation*, in scene six, in the form of an audio cassette in John Laroche's van. The scene also introduces Laroche – the Darwinian male – in his filmic incarnation. As

Laroche drives his battered van, full of potting mix and junk, towards his fateful meeting with the Seminoles in the Fakahatchee swamp (for their illicit orchid hunt which results in their arrest), he is listening to an audio book called “The Writings of Charles Darwin”. A few, short scenes later the fiction/non-fiction hybrids “Orlean” and “Laroche”, very newly acquainted, attend Orlean’s first orchid show. The aforementioned passage in *The Orchid Thief*, in which Orlean described Darwin’s long-nosed moth hypothesis, is adapted as an exchange between Laroche and Orlean:

INT. SHOW HALL – DAY

Crowded with orchid lovers. Orlean and Laroche walk among them. Laroche spots an orchid.

LAROCHE

Angraecum sesquipedale. Beauty! God! Darwin wrote about this one...

Laroche runs over to a flower, fondles its petals.

LAROCHE (CONT'D)

...Charles Darwin? Evolution guy? Hello?

ORLEAN

Mm.

LAROCHE

You see that nectary all the way down there? Darwin hypothesised a moth with a nose twelve inches long to pollinate it. Everyone thought he was a loon. Then, sure enough, they found this moth with a twelve-inch proboscis. Proboscis means nose by the way.

ORLEAN

I know what proboscis means.

LAROCHE

Hey, let's not get off the subject. This isn't a pissing contest. The point is, what's so wonderful is that every one of these flowers has a special relationship with the insect that pollinates it. There's a certain...

EXT MEADOW – DAY

We're with an insect as it buzzes along.

LAROCHE (VOICE OVER)

...orchid looks exactly like a certain insect, so the...insect is drawn to this flower. It's double. It's soul mate. And wants nothing more than to make love to it. After the insect flies off, it spots another soul mate flower and makes love to it, thus pollinating it. And neither the flower nor the insect will ever understand the significance of their lovemaking. I mean, how could they know that because of their little dance the world lives? But it does. By simply doing what they're designed to do, something large and magnificent happens. In this sense, they show us how to live [...]. (Kaufman, 2002, pp.23-24)

It is possible that it was in fact Laroche who first instructed Orlean on the co-adaptation of moths and orchids. There is a description in *The Orchid Thief* of an orchid show that they attend together in which he tells her about the moths that have adapted to pollinate clamshell and ghost orchids (Orlean, 2002, pp.112-113). Kaufman's alternative choice of the *Angraecum* as Laroche's example in this scene makes explicit the connection with Darwin and signals his role as a creative visionary. This illustrates the selective, re-focalising, expanding and contracting adaptive processes at work. Darwin, in his role as writer, reappears in *Adaptation* in an extended sequence showing Kaufman's writing process. A depressed, blocked Kaufman rifles through his piles of books and picks up "The Portable Darwin". As he muses: "the flower's arc stretches back to the beginning of life. How did this flower get here? What was its journey?" we see a sickly looking Darwin, hunched over his desk, writing: "all the organic beings which have ever lived on this earth have descended from some one primordial form into which life was first breathed" (Kaufman, 2002, p.40). Inspired at last, Kaufman starts to rant, as Darwin continues to write. Finding the connection between himself, Laroche, Orlean and the

ghost orchid in a chain of being, Kaufman exclaims: “all trapped in our own bodies, in moments of history. That’s it. That’s what I need to do. Tie all of history together!” (Kaufman, 2002, p.41). He grabs his mini-recorder and energetically dictates a story of evolution: from single cell organisms through creatures emerging from the sea onto land, through dinosaurs, apes and early man all the way to Orlean in her office in New York, writing about flowers. Playing back his own voice, we see him sink back into despair at this hubristic lunacy. How can anyone tell the story of evolution? Whereas a creation myth is a complete narrative with structure, this is a story with no beginning, middle or end, no individual protagonists and no single author. The spectre of Darwin in this scene is both his inspiration and ruination – at the same moment that he glimpses grandeur and truth in this evolutionary view of life, Kaufman feels himself stripped of his status and potency as a writer. This impotence, both artistic and sexual, is the riddle he must solve in order to find a structure and momentum for his life and in his art. The question posed, to which there is no easy answer, is how writers and artists should view themselves within a Darwinian paradigm which threatens to demolish the notion of the author-god for good.

The previously quoted orchid show scene between Orlean and Laroche is a crucial one, early in the film’s set up, which explains in cinematic shorthand her burgeoning fascination with him and his outlook on life. It also indicates several of the themes integral to the film: the relationship between word and image; doubles/twins; sexual and artistic cross-fertilisation; biological and personal adaptability; and the attraction and antipathy of subject/object relations (“this isn’t a pissing contest”). Reading the shooting script in tandem with re-watching the filmed scenes draws attention to what a wordy, linguistically articulate film this is, from a visually literate script which in turn adapts a book intensely descriptive and rich in visual and sensual detail. This particular scene demonstrates how word and image become intertwined in the cinematic process. The verbal/visual precision of the script is painstakingly enacted and embodied, enhanced by the technical artistry with which it is filmed: in lush, delicately hued photography; accompanied by a stirring yet subtle musical score; with intricately constructed visual props; digitally fine-tuned in post-production; and with sound and image edited with precision of timing and understanding of the performance dynamics involved. This performance aspect adds yet another dimension – both Streep (as Orlean) and Cooper (as Laroche) deliver finely nuanced performances pairing deft comic timing

with emotional gravitas. The result is a richly layered cinematic scene that emphasises the visual and linguistic interplay of the medium – the loquacity of Laroche on the voice-over track is given wings, literally, by the visual flight of the pollinating insects from flower to flower. The encoding of word and image as one of the binary opposites of adaptation studies (as noted by Naremore, Stam et al) is revealed as reductionism. The subtext is that cross pollination, for organisms, media, texts, and authors, is crucial to the adaptation process, producing greater complexity of form in both biology and art.

The Birds and the Bees.

Of course, cross-pollination is just a fancy name for sex. This scene, in which Orlean begins to gaze at Laroche with the kind of scalded intensity and revelation that denotes sexual attraction in cinema, immediately follows a brief one in which she meets Vincent Osceola (one of the Seminoles with whom Laroche was caught poaching) at the Seminole nursery. Orlean intends to interview him, but the muscular, sweaty, long-haired Osceola takes control of the encounter. After complimenting Orlean on her beautiful hair, which he caresses, he emotes about the sadness he senses in her: “it’s lovely.” Orlean is undone, giggling and blushing like a schoolgirl. His parting shot is: “I’m not going to talk too much. It’s not personal, it’s the Indian way”, with which he gives her shoulder a firm squeeze and walks away, leaving her visibly flustered and aroused. Susan Orlean’s meeting with Osceola is briefly depicted in “Orchid Fever” and in a little more detail in *The Orchid Thief*, in which he is described as:

a smooth-featured guy with a long black braid and meaty shoulders. That day he was wearing a green t-shirt decorated with dozens of skulls [...] he said hello and then added “I’m not going to talk to you too much. It’s nothing personal. It’s the Indian way.” (Orlean, 2000, p.267)

She is not alone when she meets him and there is no mention of beautiful hair, or recognition of her lovely sadness, or hint of lustfulness (except perhaps in her description of him as meaty shouldered and smooth-featured). Osceola’s highly effective evasion survives almost verbatim in Kaufman’s script. Tellingly, Kaufman teases from this little detail in the book a sexual awakening in Orlean which then spills over into the following scene with Laroche and, ultimately, into her fictional, sexual relationship with him in the latter part of the film. Incidentally, despite these extreme

liberties taken with the adapted text, an ironic nod to extreme textual fidelity exists in the film's version of the encounter, an embedded joke for the eagle-eyed – the film's meaty-shouldered Osceola is indeed wearing a green t-shirt decorated with skulls, a detail which is specified in the script (Kaufman, 2002, p.22).

The comical exploration of sex and masturbation in *Adaptation* is not only motivated by an irresistible streak of schoolboy humour. The sexualisation of Orlean in the film is, on an obvious level, a parody of Hollywood's tendency to sexualise female characters and to provide that crucial "love interest". But much more significantly, Kaufman forges a connection between the creative adaptation process and sexual reproduction.

"Kaufman", the overweight, balding, blocked intellectual is virtually impotent, sexually active only in his rich fantasy life in which he services every attractive woman he sees, including Orlean. His masturbatory daydreams of intense lovemaking with her form an analogy with (and extension of) the orchid-insect pollination scene and the Orlean-Laroche relationship. As his mind becomes colonised by her words, Charlie's sexual fantasies become dominated by Orlean's image, his dog-eared, highlighted copy of *The Orchid Thief* permanently in one hand, his "manhood" in the other. While his twin brother pleasures his attractive young girlfriend in the next room, Charlie gazes at Orlean's author photo and starts to masturbate. In his accompanying fantasy he is prone while she mounts him, the camera angle emphasising her position on top as the active, dominant "male" figure sowing her seed. Post-imaginary coitus, he confides in her about his fears – that his screenplay will disappoint her and not live up to her book. The analogy is clear – he is artistically emasculated by his status as an adapter. The only way he can regain his masculinity is to somehow finish the screenplay. In another masturbatory fantasy Valerie, the film's producer, is reading his finished script. As she reads, she smiles and starts to mount him, murmuring "You're a genius. You're a genius" as he "looks up at her towering over him". Immediately he ejaculates, then gets up and sits back down at his typewriter, re-reads a paragraph and declares "I'm fucked" (Kaufman, 2002, pp.48-49). The source of the humour in this scene and others that link sex with the creative process is the idea that Charlie writes in order to get laid – that writing is a form of sex display, like the famed peacock's tail. Charlie is overweight and unattractive, but he has a chance to procreate, both literally and metaphorically, through writing a successful screenplay (even if it is "just" an adaptation).

Sexual and intellectual virility have a complex relationship in *Adaptation*. While he is suffering writer's block, Charlie is totally impotent. He defers union with Amelia, the only woman he has a real relationship with, by feebly passing up two clear opportunities with her in order to go home and try to write. In trying to be "faithful" (a term often applied to both adaptations and sexual relationships) to Orlean, he is going against his most natural instincts. He is also becoming a voyeuristic sex pest. Obsessing over how to write about flowers, Charlie attends an orchid show at which, under his longing gaze, the women and the flowers merge. One looks like "a schoolteacher...One looks like a gymnast. One looks like that girl in high school with creamy skin. One looks like a New York intellectual [...]" (Kaufman, 2002, p.34). He moons pathetically, and rather creepily, over the pretty waitress who politely shows an interest in his work. Tellingly, she is the only woman he summons up the courage to make an advance to (which she rejects). Her social status as a waitress is far below Valerie's or that of Orlean, the intellectual New Yorker goddess to whom he is too terrified to speak, when given the chance to meet her. Orlean herself is represented, in her New York scenes, as a lofty, delicate creature whose briefly but succinctly delineated relationship with her husband exposes a lack of passion and sensuality. They are sexless, intellectual New Yorkers too clever and ironic to abandon themselves to passion. Charlie's loathing of his body, which he describes more than once as fat, balding, pathetic and disgusting, is in contrast with his arrogant regard for his own intellect, which he uses to patronise and wound the inferior Donald (who is also the only character having any real sex). The extensive use of voice over throughout the film functions as the expression of the innermost workings of both Kaufman's and Orlean's minds, disembodiment, in effect. Repeatedly we hear Charlie's thoughts while being taken on his inner flights of fancy visually, only to be brought back to earth to find him hunched, sweating, lumbering, and invariably tending to his own sexual needs. A serio-comic conflict is being played out between mind and body in *Adaptation* – a conflict which represents the wider, paradigmatic one between dualism (the Mind First attitude) and the neo-Darwinist synthesis of mind with body.

Not only does Kaufman sexualise his own relationship with the writer whose work he is adapting, he also detects a sexual frisson in the relationship between writer and subject in *The Orchid Thief*. Reading between the lines of the book it is possible to discern something akin to sexual attraction, especially in Orlean's many moments of antipathy

towards Laroche, who is “sharply handsome, in spite of the fact that he is missing all his front teeth” (Orlean, 2000, p.1). When Donald, posing as Charlie (who routinely allows him to do the jobs he finds too distasteful to do himself), interviews Orlean in *Adaptation*, he quizzes her about her relationship with Laroche:

DONALD

[...] I felt I detected an attraction to him in the subtext. Care to comment?

Orlean responds with what might be a practised casualness.

ORLEAN

Well, our relationship was strictly reporter-subject. I mean, certainly an intimacy does evolve in this kind of relationship [...] By definition, I was so interested in everything he had to say [...] (Kaufman, 2002, p.76)

There is a clear analogy in the relationship between Orlean and Laroche (according to Kaufman), and in Charlie’s with Orlean, between being pollinated by someone’s ideas/memes and sexual reproduction. Laroche is certainly at the core of *The Orchid Thief*; its instigator and energy source. In *Adaptation*’s orchid show scene Laroche, waxing lyrical on the “lovemaking” between pollinating insect and orchid seducer, also establishes himself within the film’s environment as the virile alpha male of the ensemble. Laroche is vividly contrasted with passive, masturbatory Charlie, resisting change and procreation. This contrast is most evident in the scene in Florida, where Charlie and Donald have followed Laroche and Orlean, in which Charlie is exposed as a Peeping Tom watching Laroche and Orlean make love through the window of Laroche’s house. Laroche spots Charlie, sprints through the house, grabs him and drags him inside, throwing him to the floor with ease and towering naked over him, dominating the frame while Charlie cowers on the floor. Charlie the masturbator is comically pathetic because humans, like orchids, do not reproduce asexually. The twinning of sexual and artistic reproduction in *Adaptation* reveals that cross pollination is as vital to the creative process as it is to genetic (and memetic?) variation.

Binary Code: Twins, Mirrors and Reflections.

Laroche and Charlie are one of many pairings of twins in *Adaptation*. Twinning is its core structural and thematic strategy. Structurally, the film takes two narrative trajectories – Orlean’s story and Kaufman’s attempts to adapt it – and cuts between them. For the first half of the film they follow divergent routes, around the middle they start to converge until they are merged in the finale. Certain scenes reflect back on each other, like the evolution montage of scene two and the penultimate scene in the swamp (evolution in reverse, with the characters reverting to a primal state) and the twice played out scene in which Orlean and Laroche don’t find/find the ghost orchid. Laroche/Orlean is an integral pairing as are Orlean/Kaufman and Charlie/Donald. Other twins include Charlie Kaufman/Robert McKee, the real and the fictional Kaufmans and Orleans, and orchid and insect. These pairs all hold up a mirror to each other and are used to tease out thematic concerns, which themselves are best expressed in pairs: mutability versus stasis, high and low culture, subject/object relationships, the Self/others, materialism and dualism, simplicity versus complexity and word and image. All these concerns are played out across the intertext of another pair of twins – the book *The Orchid Thief* and the film *Adaptation*.

Mutability and stasis are most clearly represented in *Adaptation* in the contrast between dynamic Laroche and stagnant Charlie. In *The Orchid Thief* this theme is explored through Orlean’s relationship with Laroche and, more explicitly, in the representation of Florida, which plays a major role – almost as a character – in the book.

The wild part of Florida is really wild. The tame part is really tame. Both, though, are always in flux [...]. Nothing seems hard or permanent; everything is always changing or washing away. Transition and mutation merge into each other, a fusion of wetness and dryness, unruliness and orderliness, nature and artifice. (Orlean, 2000, pp.8-9)

Florida is an environment where selection pressures change so quickly and often that evolution is speeded up – it is no coincidence that orchids and other plants of bizarre and wonderful forms have found niches there. It is also the environment that has produced the uniquely adaptable Laroche, for whom “mutation is the answer to *everything*” (Orlean, 2000, pp.18-19). In *Adaptation*, Hollywood, Florida (a small city

visited in the book) becomes Hollywood, California, another rapidly changing environment with its own shifting selection pressures exerting powerful shaping forces on the forms produced within it. Mutability is central to a post-Darwin world view, in which everything thought to be fixed is shown to be in transition and in which adaptability becomes a virtue. Laroche, as we have seen, is proud of his adaptability: “it means you figure out how to thrive in the world” (Kaufman, 2002, p.35). Orlean proves to be mutable too, able to leave behind the people and places she has immersed herself in and to move on, yet she feels a sense of shame in this. For a person, she feels, “adapting is almost shameful. It’s like running away” (Kaufman, 2002, p.35). Later, when he tells her about his wife leaving him after the car crash, she confesses that if she had nearly died, she would leave her marriage too because it would be like “a free pass. Nobody can judge you if you almost died” (Kaufman, 2002, p.45). Orlean’s fearful consciousness of the ethical value judgements of wider society (of little significance to Laroche), like Charlie Kaufman’s consciousness of its aesthetic judgements, is a heavy constraint on her ability to adapt.

From Genera to Genre, Ethics to Aesthetics.

Another aspect of the dialectic between fixity and flux is the act of naming and classification (of species/genera/genres static enough to be recognised as such). In *The Orchid Thief*, this issue is primarily a biological one, concerning the naming of rapidly proliferating species of orchids, but it spills over into ethical questions that surround hybridisation and cloning and into wider issues of intellectual ownership and the language of the law. Orlean goes into lengthy detail about the significance of the naming of plants and their etymological histories. Some orchids have multiple names, and histories of conflict over their genesis (Orlean, 2000, pp.109-112). Legal battles and personal feuds have been fought over the ownership of these plants and the rights to their reproduction and distribution. There is huge competition between orchid cultivators to set the evolutionary trends and guide species in their preferred direction. If a grower is successful and comes up with a hybrid that is likely to be popular, he/she has to wait seven years for a bloom, so has “in effect a seven-year copyright on the flower” (Orlean, 2000, p.177). This notion of biological copyright is developed by Martin Motes, who tells Orlean he believes many hybrids are “stolen” from nurseries in Thailand and sold by breeders in the US - what he calls “conceptual theft”. The Thai

breeder is probably Buddhist, he says, and therefore it would be “spiritually incorrect to protest about intellectual pirating” so the US breeders get away with it (Orlean, 2000, p.178).

The Orchid Thief also muses on legal language and how its ambiguities and inconsistencies can be interpreted and exploited, with reference to Laroche’s trial for orchid poaching (in which he attempted to escape through a loophole involving Seminole rights), to the trial of a Seminole chief, Chief Billie, who shot and killed a rare Florida panther, and to a soap opera-style trial of feuding orchid growers. There is a thread of thought through *The Orchid Thief* connecting the acts of naming, classifying and branding entities and concepts that are shifting and defying fixity, or evading a singular ethical interpretation. Both Chief Billie’s and Laroche’s trials exposed the conflict (and potential loopholes) between legal precedents for Seminole and non-native people of Florida with regard to their rights to the land and its flora and fauna. This ethical relativity surfaces again and again – in the stories of corruption and mendacity in the history of Florida’s genesis as a state and in the issue of whether the critically endangered Florida panther should be cross-bred to aid its survival, albeit as a genetically altered entity (the controversy over the latter indicating that the closer the issue of hybridising comes to the human animal, the more uncomfortable people feel about it).

Orlean’s hybrid role as journalist and creative writer is an amorphous one. The research she undertook for *The Orchid Thief* cast her in the shifting roles of observer, recorder, spy, confidante, commentator, friend, antagonist, explorer, philosopher, hanger-on, biographer, autobiographer. This amorphousness comes from the lack of specificity about the genre of her writing. *The Orchid Thief* has little in common with the small but distinct genre of narrative non-fiction novel, structured as it is in a series of digressions, temporal jumps back and forth, shifts in focus between botany, history, multiple biographies and contemporary social observation. It is a little more comparable with the gonzo journalism of Hunter S. Thompson, but Orlean is more conventional and meticulous in her research and less active and visible as a character in her own work. Her presence is vividly felt but almost always on the sidelines, watching, and while her perspective on the scenes unfolding before her is sometimes crystal clear, at other times it is obscured. *The Orchid Thief* is perhaps most closely akin to a certain kind of travel

writing, anecdotal, whimsical, yet rooted in a depth and breadth of research. Orlean is undoubtedly a writer with a flair for language, her first excursion into the swamp eliciting this description of its atmosphere: “the air has the slack, drapey weight of wet velvet” (Orlean, 2000, pp.40-41). Her second, in the company of a park ranger accompanied, unexpectedly, by two large male volunteers (on an inmate release work program from the local prison) delivers the line: “I hate hiking with convicts carrying machetes” (Orlean, 2000, p.162), which epitomizes Orlean’s humorous, subtle yet pervasive presence in the text. Her powers as a creative writer are undeniable, yet these same examples are also proof of her doggedly determined, journalistic instincts to follow a story into whatever hostile terrains it may lead. There is a see-sawing between subjectivity and objectivity in Orlean’s writing as she comes in and out of the shadows, into focus one moment, and then pulling back into the space between the lines. *The Orchid Thief* has a delicately expressed, but undeniable, self-reflexivity – a questioning of what Orlean is doing in Florida and why, and of what her relationship with Laroche is. This dynamic is vividly enacted, exaggerated and taken to its limits in *Adaptation* as “Orlean” is dragged into the spotlight to replace Laroche as an object of scrutiny, and join “Kaufman”, who is also reflecting on his role as a writer and adapter.

Laroche himself is, according to Orlean: “the most moral amoral person I’ve ever known” (Orlean, 2000, p.4). He loves to live on the edge of ethics, as he considers it, throwing himself into ethically questionable projects that are at once self-serving and – to his mind – altruistic. Schemes “folding virtue and criminality around profit” are Laroche’s forte (Orlean, 2000, p.4). He is also a born story teller and some of his anecdotes seem to Orlean to have a dubious basis in reality. However, as mentioned in the previous chapter, she doesn’t really “care all that much whether what he said was true or not” because his tales, however “staggering or cracked or improbable [...] were never boring” (Orlean, 2000, p.33). Later, when Laroche makes an especially improbable boast about a fossil pearl he once found, Orlean feels compelled to challenge its veracity. However, before she has a chance, Laroche waxes lyrical on how he found it with his (now dead) mother and (now ex-) wife in a (now developed, vanished) wilderness and she feels ashamed of being so literal-minded: “I’m not a sucker. It’s just that questioning whether it really is the only gem-grade fossil pearl in existence felt piddling compared to what he said it meant to him” (Orlean, 2000, pp121-122). Laroche’s relationship with the truth reflects back on Orlean’s as a writer of non-

fiction. As mentioned in the discussion of Laroche's parasite metaphor in the previous chapter, Orlean does not – probably could not – always report the speech of others verbatim. Some creative and interpretive translation occurs in addition to the effects of selection, juxtaposition and editing. In between fact and fiction are the acts of interpretation and representation.

High Culture Goes Pop.

There is a further shift in focus, between *The Orchid Thief* and *Adaptation*, from ethical to aesthetic concerns. The growing, changing taxonomies of genera and species explored in the book are transformed into a playful commentary on genre in the film. Ethical questions are shifted into aesthetic ones of genre and genre bending, of artistic limitations and aspirations and of “high” and “low” cultural values. In the environment of Hollywood, certain generic forms have been proven to thrive and therefore proliferate. The etymological status of the term “generic”, as the adjective form of both the biological term genera (the class above species in taxonomy), and of the cultural term genre, is interesting. When applied to a book or film it takes on a derogatory, evaluative sense, it's opposite being “original”. Donald and Charlie are set up very early in the film as, literally, twinned devices which explore this crude, binary opposition and its corollary, low versus high cultural value. While Charlie agonises over the artistic integrity of his adaptation of Orlean's book, his identical twin Donald is writing a script called “The Three”, a genre thriller about a serial killer with a multiple personality disorder. As Kaufman comments, bitterly: “the only idea more overused than serial killers is multiple personality” (Kaufman, 2002, p.31) underscoring his own liberal use of the latter in *Being John Malkovich* and in this film, in which he has split himself into twins. It is also ironic that while Donald, the recycler, is writing an “original” script, Charlie, critically acclaimed for his originality, is writing an adaptation.

DONALD

Hey Charles. I pitched mom my screenplay.

KAUFMAN

Don't say “pitch”.

DONALD

Sorry. Anyway, she said it was 'Silence of the Lambs' meets 'Psycho'

KAUFMAN

Yeah, well, maybe you guys could collaborate. I hear mom's really good with structure.

DONALD (beat, then pissy)

So, how come Amelia doesn't come around anymore? Did you put the moves on her or something? (Kaufman, 2002, p.21)

This exchange between the twins exemplifies how Hollywood pop culture is signified via the character of Donald and juxtaposed with the highbrow, slightly avant-garde leanings of Charlie. Yet, while Donald's crassness is funny, his sincerity is more appealing than Charlie's whiny sarcasm. It is Donald who usually gets the last laugh, in this case with a well aimed blow to Charlie's ailing manhood. This is a film with many points of identification which continually shift. Just as the viewer starts to feel comfortable inside a character's head he is forcibly ejected by the intrusion of another subjectivity which is, at that moment, more powerful or sympathetic. Donald is often the object of satire yet, as in all good satire, our laughter is often slightly uncomfortable. We chuckle knowingly at Charlie's superior wit whilst becoming painfully aware, as he does, that the vulgar sentiments we are mocking contain elements of sincerity and integrity that we (aligned with Charlie) are too jaded ourselves to own. Charlie's use of his superior cultural knowledge to belittle his twin and aggrandise himself (attempts which always fail and cause him instead to feel yet more self-loathing) first invites our collusion and then distances us from identification with him. This Brechtian, alienation technique (or defamiliarisation) is a key feature of the film – although our main protagonist, or locus of identification, would appear to be Charlie (the film begins inside his head after all) we are repeatedly disassociated from his subjective point of view and view him from a distance with pity, contempt, humour, even at times revulsion.

While the twins are the most obvious signifiers for high and low culture, Charlie, in his masochistic fantasies, also sees himself as a despicable peddler of Hollywood tripe compared with his vision of Susan Orlean in her New Yorker, ivory tower. His status as a writer for the cinema (and especially as an adapter) is clearly, in his eyes, below hers. The slightly uncomfortable class subtext in *The Orchid Thief* concerning Orlean and

Laroche's relationship is also foregrounded in *Adaptation*. Orlean is as guilty of cultural elitism as Charlie, exposed in the dinner party scene in which she and her husband entertain their friends (a collection of stereotypical upper middle class New Yorkers). She and her husband do a little double act, telling a mocking anecdote about Laroche's appearance and habits. Escaping to the toilet, laughing, Orlean catches sight of herself in the mirror and her expression turns to one of shame and sadness. In a much later scene, when she and Laroche have become lovers and have been found out by Charlie and Donald, Laroche asks her if she is ashamed of him, which she less than convincingly denies. Yet it is working class Laroche and uneducated Donald who rescue Orlean and Charlie from their respective, esoteric complaints – her ennui and his solipsism.

When Donald decides to follow the lead of his twin brother – maverick Charlie Kaufman of *Being John Malkovich* fame – into screenwriting he takes a directly opposite approach to the enterprise, attending a three day seminar with Robert McKee, whose tome *Story* is the bible of generic screenwriting. Meanwhile Charlie has already set himself up for a painful fall from grace. Meeting with the film's producer Valerie to discuss the proposed adaptation of *The Orchid Thief* he tells her:

I think it's a great book [...] It's great, sprawling New Yorker stuff, and I'd want to remain true to that. You know? I'd want to let the movie exist, rather than be artificially plot driven.

VALERIE

Great. (beat) I guess I'm not exactly sure what that means.

KAUFMAN

Oh. I'm...I'm not sure I know what that means either. Y'know, I just don't want to ruin it by making it a Hollywood thing. (Kaufman, 2002, pp.4-5)

At the outset, Charlie has set himself two Herculean tasks: to be faithful to the adapted text and to write a screenplay free from generic and narrative conventions. Indeed, his notion of letting it "exist" suggests that he is somehow going to extract it, perfect and whole, from the ether rather than write it at all. Charlie's disdain for textbook

Hollywood genre films and his reverence for high culture signifiers are succinctly laid out in scene four, his first with his twin brother Donald. Charlie returns home “dejectedly” from his meeting with Valerie to an excited Donald who announces that he is going to attend McKee’s seminar. Ignoring him, Charlie gazes at a photo of Amelia in a newspaper clipping:

NEWSPAPER CAPTION READS: Violinist Amelia Kavan [...] we present Ms Kavan performing Beethoven’s Opus 51 [...]

KAUFMAN

Screenwriting seminars are bullshit.

DONALD (O.S.)

In theory I agree with you. But this one’s different. This one’s highly regarded in the industry.

KAUFMAN

Donald, don’t say “industry”.

[...]

KAUFMAN

Anybody who says he’s got “the answer” is going to attract desperate people [...] There are no rules, Donald [...]

DONALD

Oh, wait. Not rules. Principles. McKee writes that a rule says you must do it this way. A principle says this works and has through all remembered time.

KAUFMAN

The script I’m starting, it’s about flowers [...] Nobody’s ever done a movie about flowers before. So there are no guidelines. (Kaufman, 2002, p.10)

Charlie's evaluative hierarchy – Beethoven “high”, genre film “low” – is revealed more than once as snobbery, his inferiority complex (about his physicality and sexuality) manifested in his need to be seen as superior intellectually. He repeatedly puts Donald down by criticising his choice of words and pronunciation. The example above reveals his distaste for the simple truth that filmmaking is an industry (because anything commercial is automatically culturally inferior) and that writing is his bread and butter. Recognition of the fact that writing is a job with financial rewards for the successful is unspeakably vulgar, suggesting that one's motives are not entirely artistic and highbrow. Even when taking on an adaptation of another writer's work, Charlie is at pains to demonstrate the originality of the work he is undertaking, that nobody has attempted anything like it before. McKee's principles, on the other hand, suggest deeply embedded human narratives, akin to those that evolutionary psychologists, and Literary Darwinists, believe that humans across cultures recognise and respond to as a result of our shared evolutionary past. Stories to do with mate selection, procreation and danger, sex and death, fight and flight, form the basis of genres and our recognition of and response to them. After a series of futile false starts, Charlie, we come to realise, is failing because he cannot function while he is attempting to resist, utterly, these base narratives. Ironically it is at a McKee seminar that Charlie has an epiphany (a narrative event he scorns as cliché). Driven there, finally, by sheer desperation, Charlie dares to ask him:

Sir, what if a writer is attempting to create a story where nothing much happens? Where people don't change, they don't have any epiphanies. They struggle and are frustrated, and nothing is resolved. More a reflection of the real world.

MCKEE

The real world?

KAUFMAN

Yes sir.

MCKEE

The real fucking world. First of all, you write a screenplay without conflict or crisis you'll bore your audience to tears. Secondly, nothing happens in the world? Are you out of your fucking mind? People are murdered every day.

There's genocide, war, corruption [...] People find love! People lose it! [...] Someone goes hungry! Somebody else betrays his best friend for a woman! If you can't find that stuff in life then you, my friend, don't know crap about life! And why the fuck are you wasting my two precious hours with your movie? I don't have any use for it! I don't have any bloody use for it!

KAUFMAN

Okay, thanks. (Kaufman, 2002, pp.68-69)

McKee's utter demolition of Charlie's pretensions is one of the comic highlights of the film. Witnessing Charlie's utter failure to progress, the viewer has come to recognise his insistence on the absence of change, epiphany and resolution in life and art as more a reflection of his own, personal state of inertia and stasis than of a radical artistic manifesto. Seeking him out after the seminar, Charlie confesses to McKee: "What you said was bigger than my screenwriting choices. It was about my choices as a human being" (Kaufman, 2002, p.70). There is a deeper vein of sincerity in this scene intermingled with its irony, a blend that is maintained throughout the latter half of the film which is kick-started by McKee's subsequent advice to Charlie:

you gotta go back, put in the drama [...] wow them in the end [...] Find an ending. But don't cheat. And don't you dare bring in a *deus ex machina*. Your characters must change. And the change must come from them. (Kaufman, 2002, p.70)

On one level, this is precisely what Kaufman does, including every plot device that he had vowed to avoid: sex, guns, drugs, car chases, characters learning profound life lessons and overcoming obstacles to succeed in the end (Kaufman, 2002, pp 5-6). McKee's principles are followed, broken and mocked simultaneously, leading to moments of the sublime (Orleans's dissolution in the swamp and Donald's words of wisdom to Charlie) and the ridiculous (a gun toting, murderous Orlean, Laroche's death by alligator, Donald shot, then thrown through the car windscreen). There are epiphanies (for Orlean and for Kaufman) which, despite all the outlandish satire, retain a depth of sincerity that is unmistakeable. Then, of course, there are the *dei ex machina* – the alligator resolving the problem of Laroche and the car crash doing the same for Donald. While this is a parody of genre conventions, repeated viewing of the film and

reading of the script reveal that it is more than that. While he has established a career and reputation as a writer of provocative, unusual, non-genre films, Charlie Kaufman never allows himself, his characters or his viewers to feel remote from the basic, undeniably powerful and dramatic motivations and emotions of the human animal that inform story and genre conventions. His work, from *Human Nature* through *Being John Malkovich* and *Adaptation*, attests to this. The references to and departures from generic conventions are not merely glib and self-congratulatory – what *Adaptation* attempts to reveal, for all its irony, is that it is in the spaces between texts, between media, between genres and between species that evolution occurs.

Decoding Binary Oppositions: (re)Assimilation, Integration, Embodiment.

Whilst the reconfiguration of McKee from Charlie's nemesis to his saviour is heavily ironic, both he and Donald are ultimately redeemed from caricature and given some of the most memorable and poignant lines in the film. McKee's blistering, eloquent tirade at Charlie's timid assertion that "nothing happens in life" has turned on its head the notion that Charlie represents artistic and emotional depth and McKee the reverse. Similarly, in the final swamp scene it is Donald – the vacuous, vulgar twin – who delivers the "you are what you love, not what loves you" speech (Kaufman, 2002, p.93), making Charlie – the deep, brilliant twin – and his self-obsessed, impotent inability to connect with others, appear shallow in comparison. Donald is Charlie's alter-ego – crass, populist, socially popular and sexually active, while Charlie is refined to the point of extinction and incompetent socially and sexually. Donald functions as the personification of Charlie's love/hate relationship with himself. Despising Donald, as he does for most of the film's duration, Charlie is locked in a fight to the death between different aspects of himself. Only when he finally embraces Donald is Charlie freed. Charlie's character arc shows him moving closer to Donald in the second half of the film, surrendering to him. Ultimately, with Donald's death, or reassimilation into Kaufman's psyche, Charlie is released, both personally and artistically. Donald and Charlie enact the conflict between mind and body that is being played out in the film. While Donald fully inhabits his body – physically identical to Charlie's – and embraces his sexuality, Charlie experiences his own body as alien to his sense of his self. Nicholas Cage plays each of the twins so differently in their physicality that it is wonderfully clear which is which. Charlie's mental loathing of his physical self is made palpable in Cage's hunched, lumbering performance as well as articulated in his speech,

and contrasts vividly with Donald's loose-limbed ease. The insistence on the unique separateness of the human mind from the human body which is essential to the Mind First, dualistic understanding of the human animal, is ultimately denied in the film's conclusion. The assimilation of Donald and Charlie (Charlie emerges physically transformed – walking tall and claiming his mate at the finish) suggests an acceptance of the materialist, neo-Darwinian synthesis of mind and body. With Kaufman's body of work in mind and the figure of Darwin so central to the palimpsestic intertext of *The Orchid Thief* and *Adaptation*, it is not too much of "an awful stretcher"¹⁰ to conclude this.

Pervading *The Orchid Thief* and *Adaptation* is an awareness of the shifting tensions and alliances between humans, the subjectivity of perception and the experience of the self in relation to others. Susan Orlean expresses this at the close of *The Orchid Thief* in one of very few passages that reveal her thoughts so clearly.

This has always been a puzzle to me, how to have a community but remain individual – how you could manage to be separate but joined, and somehow, amazingly, not lose sight of either your separateness or your togetherness. [...] If you set out alone and sovereign, unconnected to a family, a religion, a nationality, a tradition, a class, then pretty soon you are too lonely, too self-invented and unique, and too much aware that there is no one else like you in the world. (Orlean, 2000, p.316)

In *Adaptation* Charlie and Donald are identical twins, cut from the same genetic cloth. They of all people should be of deep accord. Yet as Charlie expresses it, in an apparently oxymoronic statement: "You and I share the same D.N.A. Is there anything more lonely than that?" (Kaufman, 2002, p.43). This line is striking, its contrariness difficult to resolve. It sums up a deep tension in, and a certain resistance to, the conception of the self as a biological, material entity, as a being both unique and utterly common (an adjective that bears a definition of "secular; lay; not sacred or holy" in its etymology as well as signifying a low social class). *Adaptation* is a text aware of, and playing with, tensions such as this in a manner both humorous and deeply serious at the same time. It does not attempt to resolve all its conflicts, rather it allows them to exist,

¹⁰ To borrow a famous epithet from Darwin (in reference to his theory of sexual selection and its applications).

thus managing in a sense to fulfil Kaufman's purported desire to let a movie (about flowers) "exist". This, however, is a movie about processes, biological, personal and aesthetic, in which flowers play only a part. The process of writing is one of individuation and at the same time a reaching out to others in the network of human communication. This paradox is expressed by the symbol of Ouroboros, the snake that eats its own tail, as which Charlie defines himself when he makes the choice to write himself into his screenplay and make his writing process its subject. According to Carl Jung, the ancient, alchemical image of Ouroboros has a meaning of infinity or wholeness. In it lies:

the thought of devouring oneself and turning oneself into a circulatory process [...]. The Ouroboros is a dramatic symbol for the integration and assimilation of the opposite, i.e. of the shadow. [...] He symbolizes the One, who proceeds from the clash of opposites, and he therefore constitutes the secret of the prima material which [...] unquestionably stems from man's unconscious. (Jung, 1977, p.513)

Ouroboros indicates how others become part of the self and vice versa, in a process of transformation and assimilation. In writing an adaptation of another's work, Kaufman seizes upon this dialectic, framing it as a fundamental function of and motivation for writing: the (re)enacting of this inter-relationship between self and others, of the power play between subject and object and of the difficult reconciliation of the imperative of self interest with the need for community. Writing himself into the story is both an assertion of self and a negation, a devouring of self. By forcefully placing himself in a central role (and thus displacing the alpha male figure Laroche), Kaufman reveals his ungodly humanity, exposing his mechanisms and surrendering himself to the circulatory process. Laroche, McKee and Orlean are all his "shadows" but above all, the opposite/twin of Charlie Kaufman who must become (re)assimilated into him is Donald Kaufman, who writes in his fictional, genre thriller screenplay (about multiple personalities) 'The Three':

We're all one thing, Lieutenant. That's what I've come to realise. Like cells in a body. 'Cept we can't see the body. The way fish can't see the ocean. And so we envy each other. Hurt each other. Hate each other. How silly is that? A heart cell

hating a lung cell. [...] In Loving Memory of Donald Kaufman (Kaufman, 2002, p.100)

These were intended to be the last words of *Adaptation*, in white letters on a black screen, according to the published shooting script. Their exclusion from the film is the only departure from the shooting script I have found in the course of closely studying these texts. The lost words of Donald Kaufman capture precisely the blend of deep seriousness and sincerity with ironical humour in *Adaptation*. We are challenged as viewers to read and reread the text on multiple levels concurrently. Donald's gauche "we're all one" mantra is actually a succinct articulation of *Adaptation*'s world view. "Originality" is something of a misnomer, implying as it does something uniquely individual. The origin of humans is shared and infinitely humble. A human is not a result of special creation but of an algorithmic, adaptive evolutionary process from utter simplicity to vast complexity. Our rich and varied existence hinges on an apparent paradox – that such infinite complexity and diversity of life originated in the same single cell organism. Both *The Orchid Thief* and *Adaptation* are texts that explore, in various ways from subtle to explicit, the fallout from the seismic blow to human consciousness dealt by Darwin's dangerous idea. The intertextual relationship between them clarifies and complicates this, each text revealing more of each to the other, adding layers of complexity, and creating an ongoing dialogue.

The omission of Donald's last words is a triumph, finally, for images over words. The first and last shots of the film, as it was released, reflect each other more succinctly. The film begins in total darkness, with a disembodied voice asking: "Do I have an original thought in my head? My bald head?" (Kaufman, 2002, p.1). Here at the start the written and spoken word takes precedence over image. As a disembodied Charlie monologues about his self image there is no visual, kinetic manifestation of his verbose anxieties (although the blank screen could be read as signifying his screen-writer's block). The first spoken line of the film, which is imageless, contrasts with the final image of the film, which is wordless. The final shot is of flowers in a window box overlooking a busy street. Time lapse photography shows the stream of human traffic in fast forward in the background, with the nightly closing and daily reopening of the flowers foregrounded. It is an objective, flowers' eye view of the rapidly changing, human dominated landscape and there is no verbal accompaniment. It is in stark contrast with

the subjective human voice, the writer alone, in his head, in the dark, that is the film's starting point and it puts a final spin on the (im)possibility of making "a movie about flowers". Giving the flowers the last word also recalls Martin Motes, one of many subsidiary characters in *The Orchid Thief*: "The marvellous plant world. We are but visitors in it" (Orlean, 2000, p.310).

One of the most useful and progressive changes wrought by a Darwinian perspective on textual adaptation is its radical undermining of teleology. Uprooting the ingrained assumption that the "original" authorial intention is the goal masochistically pursued by adaptation, an evolutionary perspective makes it more viable to view adapted texts and adaptations as intertexts that can accrue layer upon layer of detail and complexity via their interaction with each other and with their cultural environments. To return to Daniel Dennett: within the previous paradigm "all life can [...] be explained as serving the (unknown) purposes of a cognitive being who designed it. One of the problems with this is that it fails to explain the existence of the designer, hence it becomes "a vicious circle or an infinite regress" (Dennett, 1995, p. 70). If the word "life" is replaced with "art" or "cultural artefact", this statement still holds true. A Darwinian perspective calls into question the fundamental motivations behind the storytelling instinct, and the human need, or function, to transmit and to receive stories repeatedly. Cognitive science, evolutionary anthropology and evolutionary psychology are delving deeply into these questions, and there is currently a growth of interest within the humanities in examining language, literature and aesthetics as adaptive functions. This meeting of minds on an increasingly integrated tree of knowledge seems sure to proffer many interesting insights. Meme theory extends the enquiry onto another level, also driven by the theory of evolution, in which ideas and stories are understood as replicating themselves via different agents – adapting, as well as *being* adapted. This could further expand the nature of enquiry in adaptation studies by decentring the author; making authorial, adaptive and reception modes a more level, interactive and multi-directional playing field; and by focusing attention on the currency of ideas and stories circulating and interacting with selective pressures being brought to bear on them by environmental factors.

Underlying my close-up focus on *The Orchid Thief* and *Adaptation* is a philosophical and epistemological paradigm shift, which I have personally experienced on a more fundamental level during the process of this thesis, within which the literary-biased, evaluative binary opposites of traditional adaptation studies are revealed as reductive and redundant, belonging to an outmoded paradigm. I hope that my reading of these texts makes a case that an evolutionary paradigm – and meme theory in particular, if it can be developed more firmly as a theory – might invigorate and extend the study of adaptation and contribute positive, dynamic perspectives. I hope at least to have convinced that these texts can truly be read as a palimpsestic intertext; that this is to the detriment of neither; and that, conversely, the opposite is true. In the words of Richard Powers, transmitted via Julie Sanders: “variation grows rich in a different tongue” and adaptation can “widen the target [and] embrace more than was possible before” (Sanders, 2006, p.154). My contention remains (and has become conviction) that the Darwinian paradigm is expansive rather than reductive and that this will be amply evidenced in the fullness of time.

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